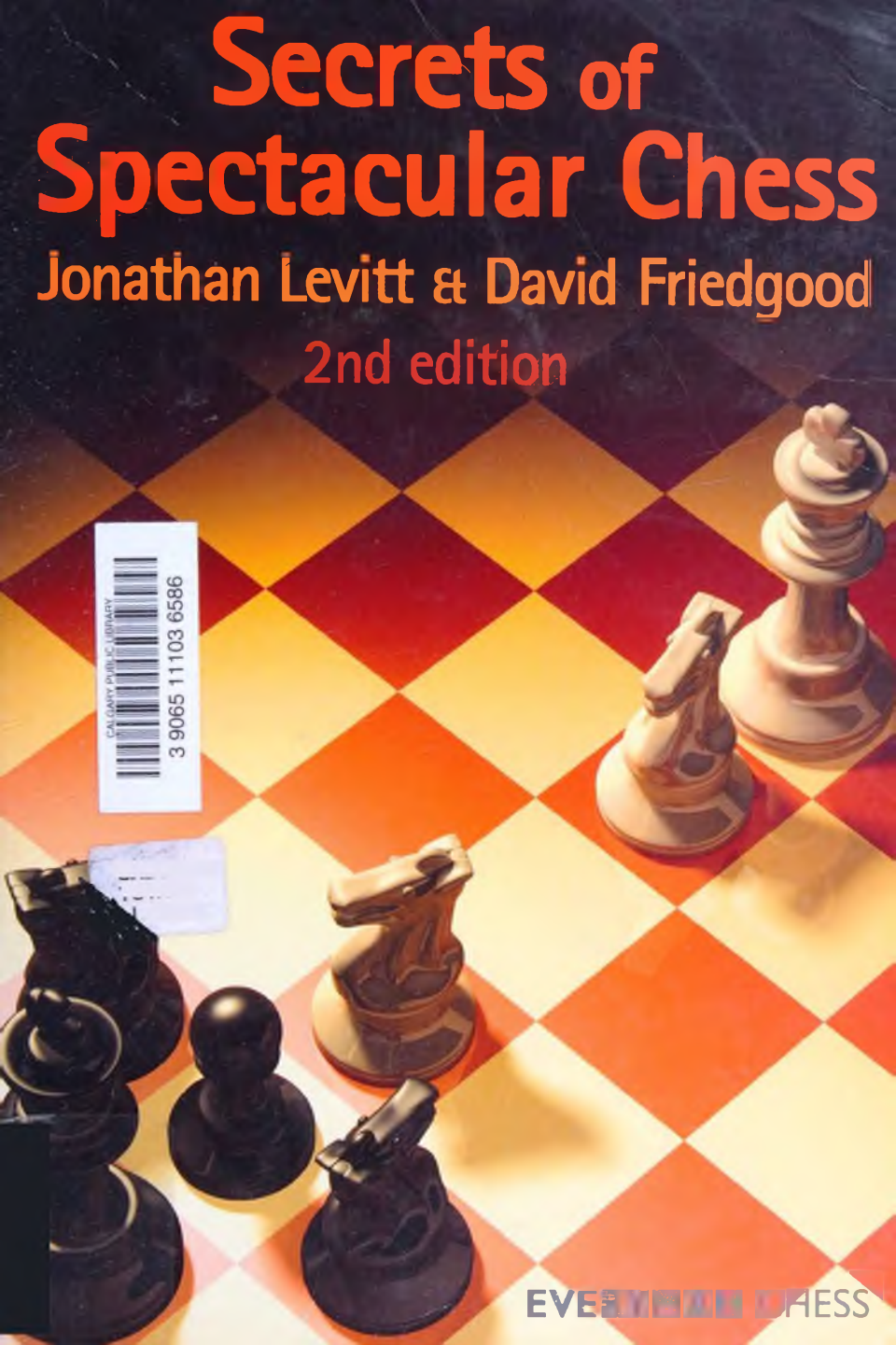
Secrets of Spectacular Chess

Jonathan Levitt & David Friedgood

2nd edition



CALGARY PUBLIC LIBRARY
3 9065 11103 6586

EVERYMAN CHESS

Secrets of Spectacular Chess

Jonathan Levitt & David Friedgood

2nd edition

EVERYMAN CHESS

Gloucester Publishers plc www.everymanchess.com

Second edition published in 2008 by Gloucester Publishers plc (formerly Everyman Publishers plc), Northburgh House, 10 Northburgh Street, London EC1V 0AT. First edition was published by BT Batsford in 1995.

This edition is copyright © 2008 Jonathan Levitt and David Friedgood

The right of Jonathan Levitt and David Friedgood to be identified as the authors of this work has been asserted in accordance with the Copyrights, Designs and Patents Act 1988.

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system or transmitted in any form or by any means, electronic, electrostatic, magnetic tape, photocopying, recording or otherwise, without prior permission of the publisher.

British Library Cataloguing-in-Publication Data
A catalogue record for this book is available from the British Library.

ISBN: 978 1 85744 551 0

Distributed in North America by The Globe Pequot Press, P.O Box 480, 246 Goose Lane, Guilford, CT 06437-0480.
All other sales enquiries should be directed to Everyman Chess, Northburgh House, 10 Northburgh Street, London EC1V 0AT; tel: 020 7253 7887 fax: 020 7490 3708 email: info@everymanchess.com; website: www.everymanchess.com

Everyman is the registered trade mark of Random House Inc. and is used in this work under licence from Random House Inc.

EVERYMAN CHESS SERIES
Chief advisor: Byron Jacobs
Commissioning editor: John Emms
Assistant editor: Richard Palliser

Typeset and edited by First Rank Publishing, Brighton.
Cover design by Horatio Monteverde.
Printed and bound in the UK by Clays, Bungay, Suffolk.

To the next generation, including Nicholas, Joshua,
Alexander and Tara, whose existence makes such work worthwhile
And to this generation, especially Maria and Beverley
Whose existence makes it possible.

Contents

Preface to the Second Edition 7
Preface to the First Edition 11
Symbols 12
Notation 13
Foreword by John Nunn 15

Black Part One: Background and Context **21**

1 Introduction **23**

The Importance of Chess Aesthetics 23
Fantasy and Motivation 25
A Brief History of Beautiful Chess Ideas 29
Previous Work in the Field 34
Review of recent Literature 36
Philosophical Perspective: Art, Analogies and Taste 44
Our Four Elements and why we have introduced them 47
Limitations of our Method 49

Part Two: The Elements of Chess Beauty *52*

2 **Paradox** *54*
The Paradox of Material *56*
Breaking the Rules *67*
The Paradox of Set Play *73*

3 **Depth** *75*
Depth, Length and Breadth *75*
Small Change *79*
Negative Depth *82*
Further Aspects of Depth *83*

4 **Geometry** *89*
Graphic Effects *91*
Optical Logic *99*
The Extended Meaning of Chess Geometry *114*

5 **Flow** *119*
Smooth and Turbulent Flow *119*
Flow and Technique *126*

Part Three: Sampling the Spectacular *135*

6 **The Poetry of War: The Aesthetics of Practical Play** *136*
Beauty in the Opening *138*
Beauty in the Middlegame *142*
Beauty in the Endgame *145*
Selected Games *146*

7 **Tactical Fantasies: The Charm of Studies** *170*
Practical Player or Composer *172*
Domination and the Paradox of Positional Draw *175*
Beauty, Truth and the Computer *180*
Assorted Brilliance *185*
Tightness and Overall Effect *198*

	Complete Studies	200
	Exercises	204
8	**Art for Art's Sake: The Delights of Chess Problems**	**206**
	Bohemian Problems	207
	The Logical School	209
	The Strategic School	215
	Longer Strategic Problems	222
	Exercises	229
9	**The Weird and the Wonderful: Unorthodox Problems**	**231**
	Helpmates	231
	Selfmates	237
	Series-movers	241
	A Step Backwards: Retrograde Analysis	243
	Exercises	246
10	**Further considerations on Chess Aesthetics**	**248**
	Feedback on The Theory	248
	Power and Personal Preference	250
	Beauty and Difficulty	252
	Light or Heavy?	253
	Help from the Other Side	256
	Even Weirder, even more Wonderful...	262
11	**Solutions to Exercises**	**270**
	Bibliography	276
	Index of Players and Composers	279
	Index of Openings, Themes and Definitions	285

Preface to the Second Edition

It is now over 12 years since *Secrets of Spectacular Chess* was first published in 1995 and of course in that time there have been many superb games played and many brilliant problems and studies composed. Your authors had been keeping their beady eyes open for dazzling and worthy examples for a possible new book. The heritage of chess is also sufficiently rich (or – less charitably – the authors' mere human brains sufficiently limited) that we have also came across quite a few older and equally fantastic examples which we simply had not been aware of at the time of first publication.

Indeed there were many possible titles: 'Secrets of Spectacular Chess Part Two', 'Further Secrets of Spectacular Chess', 'Secrets of Even More Spectacular Chess' (believe me I could go on...). There is in fact enough new material in this second edition that it could easily have been turned into a new (possibly quite slim) book, so the question is why have we produced a second edition rather than simply writing a new book? There were several reasons:

1) The structure of the old book could easily accommodate the addition of new examples.

2) There would be the chance to correct any errors that had come to light.

3) In this computer and internet age there is no reason why books cannot be updated and 'evolve' rather than being replaced by their offspring. Improvement and survival must be better than death!

4) The economy of having all the material in one book rather than spread over two.

5) The chance to add all those examples that we had subsequently come across (some created after 1995, some simply discovered too late) about which we had thought 'What a fabulous position. I wish that was in Secrets'.

So both David Friedgood and I are very grateful to the Everyman Chess Commissioning Editor, John Emms, and Chief Advisor, Byron Jacobs, for the chance to create this new product that you hold in your hands. If these two enlightened publishing professionals had not valued the original book, this new version would almost certainly not exist today. As readers can imagine, writing chess books is not the most lucrative activity in the world and authors sometimes need a lot of prodding.

It is also nice to have the Everyman Chess editorial team on board. These hard-working individuals can only enhance the quality of any book they are associated with as they apply their diligence and considerable expertise to the editorial process. Even so, it is almost impossible to produce a fault free chess book (especially when there are studies involved) and if readers do spot any errors that have crept through, do please inform us care of the publishers.

The new version was originally conceived as being a joint effort on the part of both authors of the original version, but unfortunately, due to real life constraints, David Friedgood ended up playing a somewhat more limited role in the project than originally intended. He has still contributed significantly in terms of selecting new positions and discussing them with me. David wrote the new section about the 'study of the year', annotated one of his own games and also wrote one or two commentaries on the new problems. Other than that the new material has been written by me (Jonathan Levitt). Thankfully David also had the chance to read through the first draft prior to publication and make suggestions and improvements, but nonetheless it is I who will have to accept responsibility for anything remiss.

It remains to make some comments about the new version and how it differs from the original. Essentially, as commented above, the structure of the original book has been maintained and many of the new examples have been added where appropriate within it. Several of the new 'inserts' are quite lengthy, consisting of several new positions discussed together. For example three longer direct mate problems (including one of my own) have been added in one chunk to Chapter Eight ('Art for Art's Sake') and some six studies have been added to Chapter Seven.

A lengthy analysis and discussion of the famous and brilliant game between Kasparov and Topalov, played at Wijk aan Zee in 1999, has been added at the end of Chapter Six ('The Poetry of War'). The game features probably the greatest combination ever played.

There is a new chapter – Chapter Ten – added to Part Three. This includes some general theoretical considerations, more than partly prompted by feedback from the original book. There follows some discussion of themes like 'difficulty' and 'economy' with examples drawn across a range of problem types. A collection

of some really splendid helpmates are discussed with a view to understanding the play-off between heaviness of material and aesthetic content.

The Introduction has also been considerably extended with a review of recent literature, complete with many chess examples. Somehow I managed to incorporate in this section some commentary on the only game I have played since 1995 to win a best game prize. Vanity works in mysterious ways! This extended introduction also includes a discussion of the 'greatest move of all time', although this time I did succeed in refraining from putting forward any of my own moves as a candidate.

Jonathan Levitt,
Kesgrave, Ipswich
March 2008

Preface to the First Edition

An enormous amount of work has gone into this book and we hope there will not be many errors. Those that have crept through deserve some credit for having got by the efforts of both authors, *Fritz* 3, Graham Burgess and John Nunn. If you do spot any, please let us know, care of the publishers.

Apart from the Introduction, for which responsibility lies entirely with Jon Levitt, every section of the book has been worked on by both authors. The work on the first draft was divided up as follows: David Friedgood – Chapters 2, 3, 4 and 8; Jon Levitt – Chapters 5, 6 and 7. The final chapter was something of a joint effort from the start.

A number of people have made suggestions, contributed ideas or helped in some way. We would especially like to thank:

Beverley Friedgood, Brian Stephenson, Kelly Collett, John Beasley, Gerald Hertneck, Julian Hodgson, David Norwood, Kevin of the Teachers, Peter Millican

It is the authors' privilege to have such a high-powered team working for the publishers: Graham Burgess and John Nunn. The job of a conscientious editor should never be underestimated and Graham has helped out in many ways besides. Having an eagle-eyed typesetter with a rating well over 2600 can also come in handy ..

Jonathan Levitt and David Friedgood,
London 1995

Symbols

+	Check
++	Double check
x	Capture
#	Checkmate
!	Good move
?	Bad move
!!	Excellent move
??	Blunder
!?	Interesting move
?!	Dubious move
P	Paradox
D	Depth
G	Geometry
F	Flow
Win	White to play and win
Draw	White to play and draw
Mate in n	White to play and mate in n moves
#	Mate
H#n	Helpmate in n moves
S#n	Selfmate in n moves
SH#n	Series helpmate in n moves
SH=n	Series helpstalemate in n moves
SS=n	Series selfstalemate in n moves
HM	Honourable Mention

Notation

Throughout the book (apart from the foreword) we shall be using a new notation involving the four letters P (paradox), G (geometry), D (depth) and F (flow). More detailed and precise explanations of these terms will follow later in the text.

If the solution to a problem or study involves strong paradox and geometry but no depth or flow, the letters PG appear below the diagram. The order of the letters is significant: it gives our opinion as to the order of prominence of the elements shown in the solution. A bracket round a letter indicates that the element in question is only partially present.

This notation is not meant to be absolute or definitive; it is just shorthand to communicate which elements we think are present in the solution. We will restrict ourselves to giving the letters only for composed positions (not for games or game extracts). It would be interesting to know whether readers generally agree with our lettering.

As an example, the first study in this book (the Gurvich from the Introduction) would be simply P(D) suggesting that paradox is the main element, there is little or no geometry or flow, but some depth (the point of 2 ♕f2!! only becoming clear two moves later). It is not necessarily the case that a study with all four letters would be 'better' than one with 'only' three. Exceptional paradox alone might make a study outstanding. Anyway, you should develop the confidence to judge for yourself!

Foreword to the First Edition

The question as to whether chess is a sport, an art or a science has been asked many times. As one might anticipate, such a general question doesn't admit a straightforward answer. Chess combines elements of all three, and different chess activities emphasize one or other of the three aspects. While over-the-board play undoubtedly emphasizes the sporting side, it is remarkable how often even hardened point-conscious grandmasters will proudly show off a 'beautiful' combination they have just played. It is clear that even the professional player, for whom a point may represent next month's rent, has a profound interest in the aesthetic side of chess.

But what exactly constitutes a 'beautiful' piece of chess? Very often players will agree that a particular game or combination is attractive, but equally often they are unable to describe the appealing ingredients precisely.

In this book, Jon Levitt and David Friedgood tackle the problem of isolating those elements of the game which contribute to chess beauty. I do not want to give away their secrets too soon, but I will say that their theory is very wide-ranging and applies not only to the over-the-board game, but also to composed endgames and problems. Like the authors, I believe that their philosophy is an original contribution to the appreciation of chess aesthetics.

When I heard about this book, I was concerned that the result would be a kind of formula which one could use to assess the aesthetic impact of a game or composition. However, I am happy to say that while they have pinned down many fundamental aesthetic components, there is plenty of scope left for personal interpretation.

I will not talk further about the Levitt and Friedgood theory, because that is the subject of the rest of the book. Instead I would like to present some positions which had a particular aesthetic impact on me when I was a young

player, and which helped to excite my interest in chess.

Taking practical play first, young players are quickly exposed to the classic combinations that are reprinted time and time again in books. These classics have percolated so deeply into the collective chess consciousness that it is normally only necessary to give the critical move or moves, and the game is instantly identified. For example, if I write 23...♕c3-g3!!, I would imagine that a majority of knowledgeable readers will have no difficulty identifying the game. One could continue with such puzzles almost indefinitely; I imagine that most club players will have no trouble with the first two sequences below, although the third is tricky:

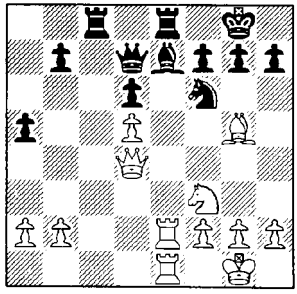
1) **29...♕b6-b2! 0-1**

2) **30 ♗b2-a3! ♕e7xa3 31 ♘g3-h5+!**

3) **30...♕d7xh3+!**

Answers at the end of the foreword!

Only the most cold-hearted player could fail to be warmed by these famous combinations. When I was young I was especially impressed by the following 'classic':



White to play
E.Adams-C.Torre
New Orleans 1920

This position looks fairly quiet, and one might expect that in the next few moves all the rooks will be swapped off along the open e-file, with a quick draw to follow. However, Adams found a combination which guaranteed his chess immortality:

17 ♗xf6 ♗xf6 18 ♕g4!

The first in a series of stunning sacrificial blows. White's queen is invulnerable due to Black's weak back rank, but for the moment Black is able to maintain the defence of e8.

18...♕b5

Over the next few moves White seeks to drive Black's queen off the a4-e8 diagonal and away from the defence of the rook on e8. Note that White's combination only works thanks to the circumstance that the rook on e1 is defended by a knight, thereby preventing ...♖xe2 at any stage.

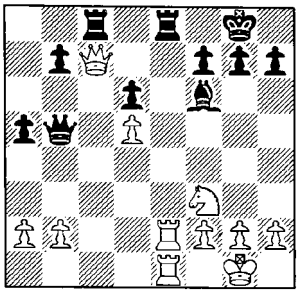
19 ♕c4!!

Not content with putting his queen *en prise* to one black piece, Adams goes one better and offers it to two black pieces. Once again Black is forced to duck with his own queen.

19...♕d7 20 ♕c7!

There are problem-like elements to the protracted duel between the two queens. It is especially attractive that White's queen slides cheekily along the black rook's line of attack.

20...♕b5



21 a4!

Up to this point, White's moves haven't been that hard to find, but now White cannot make progress without introducing an extra element into the position. The obvious 21 ♕xb7? fails to 21...♕xe2 22 ♖xe2 (or 22 ♕xc8 ♕xe1+ 23 ♘xe1 ♖xc8) 22...♖c1+, when Black suddenly exploits White's own back rank. This element of counterplay adds to the combination's appeal – White isn't just raining punches onto a helpless opponent; he has to be precise or it could all go horribly wrong.

The pawn move deflects Black's queen onto a square which allows White to introduce the key new element. It would be hard to guess from the diagram that White's a-pawn would play such a vital role just five moves in the future.

21...♕xa4 22 ♖e4!

When I first saw this combination, I found the last two moves hardest to understand, it took me a few minutes to grasp what is going on. At first sight, 22 ♖e4 doesn't threaten anything, because 23 ♖xa4 can be met by 23...♖xe1+ 24 ♘xe1 ♖xc7. But a closer look reveals that the threat isn't so much 23 ♖xa4, as 23 ♕xc8 (note that 23...♕xe4 loses to 24 ♕xe8+). This threat holds even if Black relieves his back rank by 22...h6 or 22...g6. Nor can Black defend by 22...♖a8, because this removes the attack on White's queen and allows 23 ♖xa4. It follows that Black can only return to b5.

22...♕b5

What has White achieved with his last two moves? Remember that earlier on, White couldn't play ♕xb7 because of the reply ...♕xe2. The motivation for the last two moves is that White has transferred his rook away from the vulnerable e2-square with gain of tempo.

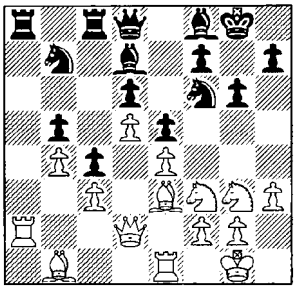
23 ♕xb7! 1-0

White has covered all the squares on the a4-e8 diagonal and Black faces a fatal loss of material. As you will learn later in this book, White's 21st and 22nd moves constitute what problemists call a foreplan, leading up to the mainplan 23 ♕xb7. Whilst it is understandable that problemists should wish to develop a precise language to describe such tactical manoeuvres, it is unfortunate that this jargon has the side-effect of making even relatively straightforward ideas seem very technical and difficult. An over-the-board player would probably describe a4 and ♖xe4 as 'a necessary preliminary manoeuvre to prepare the killing blow on b7' – much the same thing but in less technical language.

This combination had a profound ef-

fect on me. It suddenly seemed that chess was worth all the blunders and lost games, if only one could produce such a beautiful and profound combination. Unfortunately, I am still waiting.

My second example also had a big effect on me, although the contrast with the preceding position could hardly be greater.



White to play
A.Karpov-W.Unzicker
Nice Olympiad 1974

Karpov faced a tricky problem in this typical Spanish position. White has a space advantage, but this is only useful if there are plenty of pieces on the board. If Black can exchange all the rooks along the a-file, then there will be less congestion in his position and he should have few problems holding the draw. At the moment it seems that Black is in an excellent position to challenge the a-file. His c8-rook and queen are well-posted, while the rook on e1 cannot cross to the a-file because the b1-bishop gets in the way. In the hands of most players, this position would probably have petered out to a quick draw, but Karpov found an unusual and imaginative solution to the problem.

24 ♗a7!!

Once you have seen this idea, it appears very logical. White physically obstructs the open a-file in order to prevent the exchange of rooks. This gives White time to support the bishop on a7 using his other pieces, for example with ♗c2 and ♖ea1. White's queen might go to e3, or White might even triple his major pieces on the a-file. Black cannot emulate White's plan because of his lack of space. The blockading bishop is on a7, and so Black has no room to double rooks on his side of the bishop.

The reason such a plan is not seen more often is, of course, that normally Black would be able to attack the a7-bishop, forcing White to abandon his a-file ambitions. Karpov's unique perception was that, thanks to the position of Black's other pieces, this isn't feasible. After 24...♕c7, for example, White plays 25 ♕e3 and it will take Black far too long to bring another piece to bear on a7. In the meantime White will have doubled rooks himself.

Once White has his major pieces lined up on the a-file, the bishop can move away and White will gain undisputed control of the open file.

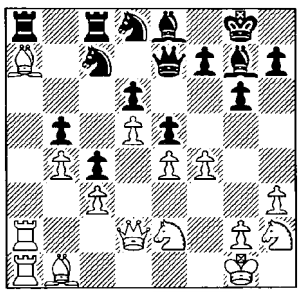
24...♘e8 25 ♗c2 ♘c7 26 ♖ea1 ♕e7 27 ♗b1

This move opens the line d2-a2, so as to allow ♕xa2 after a possible exchange on a2.

27...♗e8 28 ♘e2!

Karpov knows that defending on two fronts is much harder than meeting threats in a limited area. Having secured a permanent advantage on the queenside, he now looks around for another way of inconveniencing Black. Unzicker's knight manoeuvres have been designed to counter the queenside menace, and as a result his knights have lost contact with the square e5. Karpov exploits this by preparing f4.

28...♘d8 29 ♘h2 ♗g7 30 f4



The second front is opened. Black should probably have exchanged on f4, so that at least one minor piece would gain some activity. However, even in this case White would have had a clear advantage.

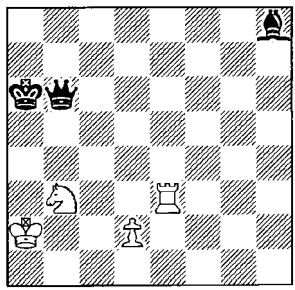
30...f6?! 31 f5 g5

Now Black has permanent weaknesses on the kingside too, and it will only be a matter of time before Karpov breaks through on one side or the other.

32 ♗c2 ♗f7 33 ♘g3 ♘b7 34 ♗d1 h6 35 ♗h5 ♕e8 36 ♕d1 ♘d8 37 ♖a3 ♔f8 38 ♖1a2 ♔g8 39 ♘g4 ♗f8 40 ♘e3 ♔g8 41 ♗xf7+ ♘xf7 42 ♕h5 ♘d8 43 ♕g6 ♔f8 44 ♘h5 1-0

Before I saw this game, I had regarded positional manoeuvring as something that one undertakes reluctantly if no other option is available. Karpov's play convinced me that strategic ideas could have a beauty all their own, and were worth devoting more attention to. Up till 1974, my play had been heavily influenced by Tal and Alekhine, but it gradually became less one-sided, although I have retained a certain preference for tactics up to the present day.

My local library had a couple of books dealing with endgame studies, so at the same time that I was developing as a player, I was also introducing myself to the magic of studies. The following study particularly captured my imagination.



Draw
L.Kubbel, 1921
Listok Shakhmatnovo Kruzhka
Petrogubkommuny

Here one's instant reaction is to play 1 ♖e6 ♕xe6 2 ♘c5+, an impulse

which dies as soon as one notices that 1...♕xe6 pins the knight. If the knight were not blocking the third rank, then one could play ♖a3+ and ♖b3, but the only really forcing knight move is 1 ♘c5+, and this fails to 1...♕xc5 2 ♖a3+ ♔b6 3 ♖b3+ ♔c6 and c3 is guarded by Black's bishop.

So the two most active moves fail, and no other move seems likely to do the trick. When solving the best endgame studies, there always comes a moment when it seems completely impossible to achieve the study's objective. In this study, the critical moment arises straight away.

I can well remember my delight when I hit upon the paradoxical key move.

1 ♘d4!!

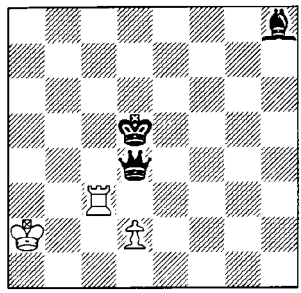
Not only does this put the knight *en prise* to both Black's pieces, it is hard to imagine that Black's queen has no way to escape from the threats of 2 ♖e6 and 2 ♖a3+. I recall trying out all the queen's moves one by one, unable to believe the truth of the matter – apart from the immediate capture of the knight, Black's queen is trapped. The only non-trivial variation arises after 1...♕d8, but then 2 ♖a3+ ♔b7 (c5 and c7 are off limits, so the king can only hope to slip away from the checks via c8) 3 ♖b3+ ♔c8 leads to a position in which White sacrifices his rook after all: 4 ♖b8+! ♔xb8 5 ♘c6+ drawing.

But now we should return to analyse Black's most obvious move.

1...♕xd4 2 ♖a3+ ♔b5

Black can only evade the rook checks by playing his king to the d-file.

3 ♖b3+ ♔c4 4 ♖c3+ ♔d5



No more checks, but now White can switch plans.

5 ♖d3! ♕xd3 Stalemate

This study possesses great charm and I often use it to introduce endgame studies to players who haven't met composed endgames before.

I hope that readers will gain as much pleasure as I have from the plentiful examples of spectacular chess provided by Levitt and Friedgood. Their theory successfully tackles a very difficult task.

Finally, those mystery games. If you didn't recognize 23...♕g3 as coming from Levitsky-Marshall, Breslau 1912, then you should spend more time studying the classics! The other three were: 1) Bernstein-Capablanca, Moscow 1914; 2) Botvinnik-Capablanca, AVRO (Rotterdam) 1938; and 3) Averbakh-Kotov, Zurich Candidates 1953.

John Nunn,
London 1995

Part One

Background and Context

Our Purpose

It is the authors' unashamed intention to overwhelm readers of this book with a wealth of dazzling and magnificent examples in such a way that they will come to share with us the joy and appreciation of beauty in chess for the rest of their lives!

This may sound over the top – it was written that way – but we actually mean it. After joining us on our guided tour round some of the beauty spots of the chess universe (games, studies and problems) we think there is a very good chance you will agree. We believe in the games and positions to be found in this book and hope that, with perhaps a little help from us, they will speak for themselves and convince you.

In fact we are even more ambitious. We also wish to attempt a theoretical analysis of chess beauty. In the first part we will isolate what we believe to be the important basic elements of that beauty and look at them one by one. In the second part we will bring those elements together in an orgy of spectacular chess. We will also look at some difficult and abstract questions of chess aesthetics. Hopefully that will also interest the reader; if not it should be more than possible just to enjoy the examples.

As with much else that is worthwhile, taste develops with experience. We are aiming this book at the practical player, of whatever strength. Intelligent beginners should be able to follow a reasonable amount; however, some experience of chess is necessary before you can really begin to appreciate the game.

At the start of the journey there is a small hill to climb: learning the rules and developing some familiar patterns from play. After that it is downhill most of the way! It is probably the case that less playing experience is necessary before you can begin to enjoy problems (they are relatively independent of playing strength) and more is needed before studies can really be appreciated. The complexity of chess is such that one can appreciate the game on many different levels.

It is a great pity that the majority of competitive players have not become acquainted with the worlds of problems and studies. They are missing out. They have all the equipment necessary to derive great pleasure and yet they fail to do so. Why? Many of them believe it will not help their game. Not a good reason anyway; in fact they could not be more wrong, as we will demonstrate.

The more this book reaches such people, the better. There is much of value in chess. Some of the positions in this book represent great triumphs of human ingenuity, persistence and sheer intellectual skill. Many beautiful surprises await you. Of course, chess is of great value to society as a competitive sport and as an educational tool, but our objective is to spread awareness of a completely different side to the game. If we succeed to some extent in that objective, it will do no harm.

Chapter One

Introduction

The Importance of Chess Aesthetics

Just in case you were not completely convinced by the blurb on the back of this book – and it would be most worrying if you were – it is worth considering some of the points in more detail.

The case for chess aesthetics – the value of developing an eye for the beauty of the game – can be argued on several different levels. We will consider four of them:

1) hedonism (pleasure-seeking);

2) cultural/artistic value;

3) educational; and, crucially for the competitive player,

4) practical value.

1) Hedonism

Bertrand Russell once wrote that strawberries, in themselves, were neither good nor bad. He went on to argue that, all other things being equal, the man who likes strawberries is at an advantage over the man who does not. He concluded 'But the man who likes them has a pleasure which the other does not have; to that extent his life is more enjoyable and he is better adapted to the world in which both must live.' As it is with strawberries, so it is with chess problems and studies. They are simply a great source of pleasure and delight to those who develop a taste for them. Quite a refined form of hedonism maybe, but one which, unlike strawberries, is readily available any time, any place. A book like Kasparian's *Domination in 2545 Endgame Studies* could give you hundreds of hours of entertainment and pleasure – at a price much cheaper, per hour, than strawberries. Seriously, there are a very great many studies, games and problems to enjoy and if you are not satisfied you can always create your own...

2) Cultural and Artistic Value

Paintings are generally accepted as a valid art form, and rightly so. There is every reason why chess composition should be treated in the same way. Just

as paintings exhibit the skill and genius of their artists, so can chess positions show the brilliance, imagination and depth of thought of their composers. Some chess compositions require greater technical skill than others. There are different schools of chess composition as well as a great heritage and history to the development of the art.

It could be argued that paintings are simply pretty, and that alone is sufficient reason for looking at them. Such a limited view of art can also be applied to chess composition, but, even within these confines, there is more than enough 'justification' for its existence. Problems and studies help brighten up the intellectual world. That is something of great value.

The term 'art of chess' can mean two things: either true art (which is the meaning we will be using) or craft. The craft of chess, the skill by which you achieve victory, is something quite different.

3) Educational Value

As an experienced teacher of chess in schools, I (JL) am a great believer in the general educational benefit of our game. Apart from logical thinking and planning ahead, children also learn from the feedback they get in playing chess. They can see their own thinking process in action and can start to feel responsible for their own decisions. Good problems and pretty studies are a wonderful tool for anybody trying to teach chess to children. The puzzle element commands their attention and the surprising solutions can capture their imagination.

Of course, great games and endgame studies can also have a clear didactic value in teaching chess technique. However, there is more to it than that, and the next section is dedicated to sceptical competitive players who don't see the point in looking at chess composition.

4) Practical Value

'Will looking at problems and studies actually help me play better chess?' This is a question I have been asked many times. The answer is yes.

If you want to become a stronger player, following the example of Garry Kasparov might have its advantages. Let us hear a few things he has written about this subject (see, for example, the chapter entitled 'The Beauty of Chess' in the Batsford book *Learn Chess with Garry Kasparov*):

'I am fond of solving chess problems and, particularly, chess studies. Chess problems are full of paradoxes and original ideas.'

'There are some studies which I like to play through again and again.'

'Chess composition, the most beautiful and mysterious aspect of the art of chess.'

'It was the beauty and brilliance of tactical blows that captivated me in early childhood.'

'Chess for me is art.'

It is fairly clear from that barrage just how important the aesthetic side of chess has been in the development of

Kasparov the player. He is by no means the only one. Smyslov, Botvinnik and Lasker have all composed endgame studies. Practically all world-class players have an interest in this side of the game – it is part of what we mean by a true love for chess.

Looking closer to home, the top English players (as of 1995) provide further examples. John Nunn is one of the world's best problem solvers and has written books on studies and problems. Jon Speelman is also a good solver (though not competitive) and has composed endgame studies. Michael Adams has entered British Chess Problem Solving competitions. Nigel Short sees chess as primarily a competitive sport with the artistry of the game as an important by-product. Julian Hodgson has a splendid eye for beauty in chess and has shown me several of the positions to be found later in this book. Jon Mestel is also a world-class solver. To use an overworked pun, it has been very hard to determine, in recent years, whether he is second to none or second to Nunn – their solving skills are that close. Internationally speaking, Grandmasters Benko and Timman are both brilliant study composers.

The correlation is very clear: a sophisticated aesthetic sense and appreciation of chess beauty go hand-in-hand with top-class play. For those not convinced by the empirical evidence, there are several plausible reasons why looking at chess problems and studies will improve your chess.

Firstly it should enhance powers of chess fantasy by building up the 'vocabulary' of tactical ideas and patterns. As Kasparov has put it, 'Chess problems are full of paradoxes and original ideas' – so even he came across ideas and 'vocab' he had not previously encountered.

Secondly, solving problems and studies requires very clear, logical, precise, goal-orientated thinking. Such thinking is very valuable, but not exclusively so, when playing chess at any level.

Thirdly, and perhaps most importantly, there is the question of motivation. Again, this is complex and there are several aspects worth considering (even if they are slightly tangential to the central theme of this book). I intend to show why motivation is crucial to competitive success, then to analyse motivation itself and, finally, to discuss why developing your aesthetic sense and fantasy will enhance your motivation.

The next section of this introduction, entitled 'Fantasy and Motivation', is divided into three. Only the final part fits the context of explaining why looking at studies and problems – or reading a book such as this – will help improve your chess; but the rest is necessary to put that final part itself into a slightly different context!

Fantasy and Motivation

The Importance of Motivation

It is helpful to consider an equation sometimes used by sports psychologists:

Performance = Knowledge + Motivation

In chess terms, the meaning of this is that a player's performance from one tournament to the next will vary entirely with his motivation. Knowledge builds up slowly over the years and does not vary much in a short time, whereas motivation has massive swings up and down, accounting for good and bad form. Of course, other factors, like luck, can play a part and the above equation only holds as a rough approximation. Looking at my own results in recent years I have averaged about 2475 with several results over 2600 and several below 2350. In a match between myself in good form and myself in bad form, the statistical implication of the above figures is that good form would win something like 8½ to 1½. The moral is clear: competitive players should treat their motivation very seriously indeed and look for ways to improve it. It is not only intelligence, talent for the game, knowledge, understanding and physical fitness that count; will to win, pure unadulterated motivation can also count for enormous variation in the levels that different players reach.

Various Forms of Motivation

Not surprisingly, motivation varies both with time and from person to person. What makes one person tick may be of no consequence to another. But the question remains: why is it that so many people spend so much time on chess? I want to break the different types of motivation into two broad categories:

A) Power, success, glory, money, boosting ego, 'proving yourself', winning, point-scoring, increasing your rating, etc.

B) Reasons intrinsic to the nature of chess: love of the game, pleasure from the flow of ideas, satisfaction from playing a good game...

These two categories are not exclusive, mutually or otherwise. People could play for mental exercise or social reasons, for example. However, most motivation could be described either as type A (competitive) or type B (aesthetic). I am not trying to argue that type B is 'better' than type A. I do not go along with 'It's not winning that matters, its taking part' – in fact I regard that as unprofessional and dilettante – but nor do I endorse 'Winning isn't the main thing, it's the only thing!' That is simply unrealistic. The point is that type B motivation exists and is very important for many reasons, not least that it can help you gain type A success!

I gain pleasure from winning, even if the game was terrible, but I gain many times more pleasure from winning a good game. If the game is good technically (accurately played, say) perhaps that pleasure is partly type A since one could argue that it has a stronger ego-boosting effect. But if the game has a spectacular finish, an elegant and stylish episode or even a single surprising, powerful move I can get an enormously enhanced aesthetic kick. Incidentally, it is better, for practical reasons, to enjoy such things *after*

the game, looking back at it. Enjoying them at the board, while you are playing, can endanger the result! From what we can tell, most players, good and bad, have a similar experience. Winning in style generates enormous pleasure – a lovely, if occasional, reward for some of the pain and suffering involved in playing competitive chess.

Kasparov, who was in 1995 the world's most strongly motivated player, is well aware of both types of motivation:

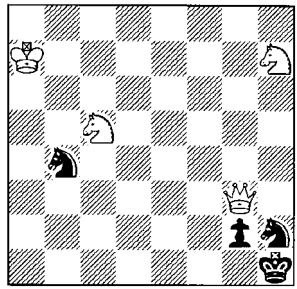
'I want to win, I want to beat everyone, but I want to do it in style!'

Type B motivation is crucial even for less ambitious mortals. If it were just a question of winning or losing, if it were not possible to play a brilliant game, to make an incredible queen sacrifice, to play the occasional shocking or outrageous move, then I suspect many people would not play chess. It simply would not be worth it: such a difficult game and with so few rewards.

It is clear that aesthetic, type B motivation is important for all chess players. If you can increase that motivation by increasing your knowledge and understanding of aesthetic ideas, your game should improve as well.

The Role of Fantasy

Many, many years ago I remember being particularly struck by the following position. I came across it as a young junior while reading the book *Practical Chess Endings* by Irving Chernev.



1.1 Win P(D)

A.S.Gurvich
Bakinski Rabochi 1927

It seems White cannot prevent the g-pawn queening, however...

1 ♘e4!

Intending to meet 1...g1♕+? with 2 ♘f2+ forcing 2...♕xf2+ 3 ♕xf2 with a win. Black finds a better defence.

1...♘d3!

So that 2 ♕xd3 g1♕+ leaves White with insufficient material advantage to win. White's only way to win is quite breathtaking:

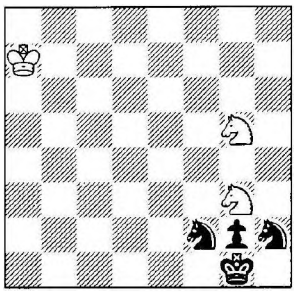
2 ♕f2!! ♘xf2

If 2...♘f1, then 3 ♕h4+ wins. 2...g1♕ 3 ♘g3+ is also hopeless, so Black has to take the queen.

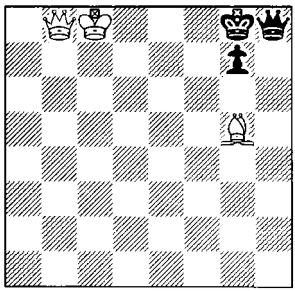
3 ♘g3+!! ♔g1 4 ♘g5

A fabulous zugzwang. It is mate next move. Although my taste has changed over the years, and different ideas 'turn me on' nowadays, the final position still makes a strong impression. (Later on in the book, once we have introduced our explanatory concepts, we will be able to discuss the

aesthetic qualities of such examples in more detail. For the time being readers can judge the positions for themselves.)



I have to admit that I used to dream of winning important games with the above finish. I suspect the next position also found its way into my subconscious at the time:



1.2 Win PD(G)
Γ.Richter
Suomen Shakki 1953

A very difficult study to solve, since White starts paradoxically, by moving away from the action. Far more natural would be 1 ♔d7+, but it does not win. The position after 4 ♕f7! is an example of 'domination' and for that the king is needed on b7.

1 ♔b7+!! ♔h7 2 ♕h2+ ♔g8 3 ♕a2+ ♔h7

Not 3...♔f8 4 ♕a8~ and 5 ♕xh8.

4 ♕f7!

Zugzwang. White wins since the black king and pawn cannot move (legally) and the black queen is captured if it moves anywhere along the eighth rank except g8. After 4...♕g8, 5 ♕h5 would be mate.

It was Freud who wrote that 'Fantasy is action in rehearsal.' Endgame studies are, essentially, well worked-out versions of other people's chess fantasies. You can imagine a composer thinking 'Would it not be fabulous if a chess game finished like this...?' As the Freud quote suggests, these fantasies have a practical function. Studies show the full potential of what is possible in chess, the heights to which it can aspire.

There can be very few chessplayers whose sense of wonder would not be awakened by positions such as the above. The positions in this book, and others, have motivated me generally, making me realize what a magical game chess is. They say chess is in the Russian soul; here is what Alexander Kotov thought of such positions (from his book *Play Like a Grandmaster*):

'...Chess combinations are a sort of dramatic work of art, full of tension and aesthetic content. It is for this facet of the game more than any other that millions of people throughout the

world love chess.'

Chess may well be in the Dutch soul too. GM and journalist Hans Ree expressed the same sentiment much more succinctly:

'Chess is beautiful enough to waste your life for.'

The former French champion, endgame theorist and composer, André Chéron, warns the 'practical plodder' of his possible error:

'The player who would shun the artistic endgame would thereby deprive himself of a spiritual training which is as useful as it is pleasing. If to this disregard he adds that of the problem, he can compliment himself in the knowledge that out of the noble game of chess he has drawn only one third of its potential intellectual enjoyment.'

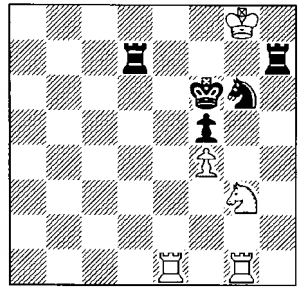
A Brief History of Beautiful Chess Ideas

In this book we will be looking at the positions themselves rather than the historical context in which they developed. To make up for that, this little section is offered as compensation. It should be stressed that this is a very brief, generalized and necessarily simplistic 'history', written only to provide the newcomer to composition with some perspective.

The art of chess composition has been around a very long time:

(see following diagram)

Faced with various threats, White pulls off a tremendous 'swindle'.



1.3 Win (P)
Al-Adli, ninth century

1 ♘h5+! ♖xh5 2 ♖xg6+! ♔xg6 3 ♖e6#

A combination of which any modern club player would be proud. It could be presented as a study (White to play and win) or a problem (mate in three).

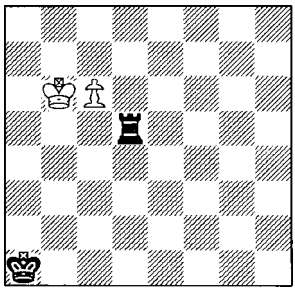
But hang on a second, didn't chess only reach its modern form in the fifteenth century? How can this position be genuine? In fact, the old form of chess, Shatranj, did not have queens or bishops as we know them today, but the above position contains only rooks, knights, kings and pawns – all of which moved much the same way over a thousand years ago as they will tomorrow.

H.J.R.Murray in his *History of Chess* (1913) looked at over 500 positions that cropped up in Arabic and Persian manuscripts dating back as far as the twelfth century. Few positions showed any economy of force; many involved king-hunts. Often, for dramatic and game-like significance, Black threat-

ened mate in one, as in the above problem. There were many fine sacrifices and elegant mates.

Study composition did not reach such heights again until the nineteenth century. Kling and Horwitz established the term 'study' in their 1851 book which contained about 200 endgames. Prior to that, most endgame positions found in chess books were only for didactic purposes. By 1890 Alexei Troitsky (1866-1942) and Henri Rinck (1870-1952) – considered the fathers of the modern endgame study – were already active.

The famous Saavedra position dates from 1895.



1.4 Win PF(D)(G)
F.Saavedra (Barbier)
Glasgow Weekly Citizen 1895

Saavedra did not in fact create the position; he simply discovered the paradoxical underpromotion 6 c8♖, contradicting published analysis 'proving' that the position was drawn. For that one beautiful move, his name will probably be more famous than any other grandmaster of the present era who fails to reach over 2700 standard! The study is, of course, a great one. Rich play out of a simple-looking position, a paradoxical twist at the end and an elegant flow to the logic of the solution. All from just four pieces – marvellous economy.

1 c7 ♖d6+

There is no other way to stop the pawn promoting. If, now, 2 ♔c5? then 2...♖d1! 3 c8♕? ♖c1+ wins the queen. 2 ♔b7? ♖d7 is only a draw.

2 ♔b5 ♖d5+ 3 ♔b4 ♖d4+ 4 ♔b3 ♖d3+

There is a minor dual here in that White could have played 4 ♔c3 ♖d1 5 ♔c2 ♖d4!, transposing.

5 ♔c2! ♖d4!

No longer able to go 'behind' the king on the c-file, Black finds a surprise defence: 6 c8♕? ♖c4+ 7 ♕xc4 is drawn by stalemate! Saavedra found that White could still win:

6 c8♖!!

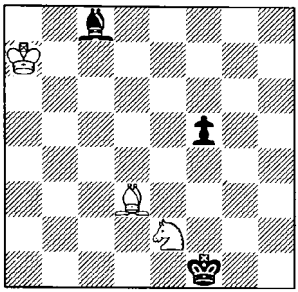
Threatens mate by 7 ♖a8+ ♖a4 8 ♖xa4.

6...♖a4 7 ♔b3

Threatens both the rook and the king (8 ♖c1 mate). There is no defence.

The 20th century saw prolific activity, especially amongst Soviet composers. Many themes have been exploited almost exhaustively. There now exist vast collections of high- class studies, a testimony to the enormous amount of work that has been put in by some of the great composers. You will see some of them later in the book, but here I want to present you with a personal favourite illustrating the theme of

Domination, a term coined by its composer, Henri Rinck.



1.5 Win FGP
H.Rinck
Las Noticias 1926

1 ♔b8! ♗d7

The only square. After 1...♗e6, 2 ♘f4+ wins.

2 ♔c7 ♗e8

If 2...♗a4, 3 ♘c3+. The bishop and knight 'battery' against the black king controls all the black bishop's escape squares.

3 ♔d8 ♗f7

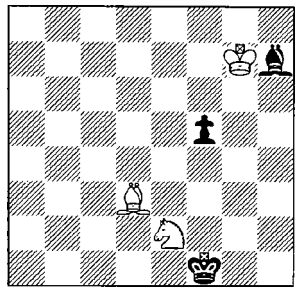
If 3...♗a4, then 4 ♘c3+, whilst 3...♗g6(h5) is met by 4 ♘f4+.

4 ♔e7 ♗g8

The hunt continues. Incredibly, all the bishop's squares are controlled, e.g. 4...♗a2 5 ♘c3+ or 4...♗b3 5 ♘c1+.

5 ♔f8 ♗h7 6 ♔g7

If you tried to compose a position where the white king chases a bishop to its doom (as in the above example) you would expect a board full of pieces. Rinck controls the play with just four more pieces (including the black king). Rich content with astounding economy – the bishop is dominated over more than half the light squares on the board. To my mind this position is a simply fabulous achievement.

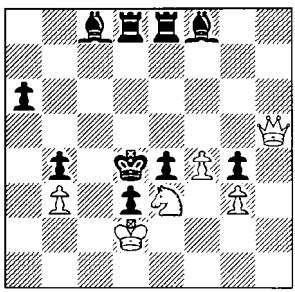


Unusually, the above endgame has no introductory sequence (sometimes known as 'foreplay'!). It just starts in the middle of the essential action (a floating domination across the board). More often composers try to hide the main idea in order to make it harder to see, and to increase the element of surprise, but this study is exceptional, and is almost perfect presented as it stands. A natural gem!

The history of the game (and its famous players) is well known. It is interesting that the development of positional theory – the theory of Steinitz and Lasker; the hypermoderns; the dynamic Russian school – has gone hand-in-hand with the mushrooming of study art. Figures such as Richard Réti (1889-1929) have been significant in both.

Finally, moving on to the problem, the major advances on what had been

seen a thousand years earlier by the Muslim world again came in the nineteenth century. One man in particular stands out: Sam Loyd (1841-1911). His problems were not only entertaining, original and elegant but also way ahead of their time in terms of thematic content. The following problem (known as the 'organ pipes') is a favourite of leading German Grandmaster Gerald Hertneck. Several beginners to whom I have shown the position also expressed their admiration for it, showing just how accessible Loyd's problems can be.



1.6 Mate in 2 GP(F)(D)
Sam Loyd
Boston Gazette 1859

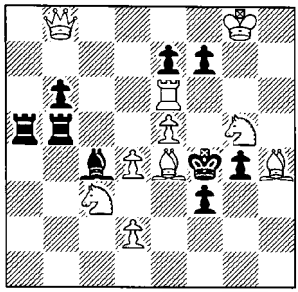
The solution **1 ♕a5!** sets up a striking zugzwang. The black pieces cannot help but get in each other's way: 1...♗d7 2 ♕d5#; 1...♗e6 2 ♕e5#; 1...♖e7 2 ♕xb4#; 1...♖d7 2 ♘f5#; and 1...♗c5 2 ♕a1# being sample variations. The reader should go through every legal Black move just to prove it really is mate in two. The 'organ pipes' – the formation from c8 to f8 – have since become an established idea seen in many more problems.

Going back to the practical value of solving problems, seeing surprising zugzwangs as in the above position can greatly help a player broaden his perspective. Weaker players tend to see the board only from their side, whereas stronger players are able to step inside the opponent's shoes from time to time and take both sides' plans into consideration. Karpov, for example, often reaches positions where all his opponent's moves have drawbacks. It is not (humanly) possible to solve the Loyd problem without looking at both sides' possibilities.

The 20th century saw a great deal of activity in problem composition. Many ideas and themes have been investigated almost to exhaustion. Some people claim it is now impossible to create a genuinely original mate in two. Others have resorted to 'fairy chess' to find new pastures. Towards the end of the book we will look at some unorthodox types of problem, but we will restrict ourselves to positions with regular chess pieces.

In the orthodox mate in three, Lev Loshinsky (1913-1976) is considered one of the greatest exponents. Some of his problems are extremely complex and sophisticated, yet still crisp and clear. In his book *Solving in Style* John Nunn described the following problem as 'perfect in every way'. To really understand such a problem takes time (at least half an hour probably), but it is

well worth the investment. Except for its unusual quality, it is a typical modern mate in three.



1.7 Mate in 3 PG(D)
L.Loshinsky
1st Prize '64' 1974

Sooner or later practical players will have to face up to complicated problems with a board full of pieces. Forget your prejudices for just a few minutes and enjoy unravelling the mechanism of this problem – you will begin to see why it is necessary to have all those pieces to achieve the desired effect. The only way to force mate in three is as follows:

1 Rg6!

A surprising key, exposing the white king to various checks by moves of the f7-pawn (...fxg6; ...f6; ...f5). In fact, in view of the threat 2 ♘h3+ gxh3 3 ♗g3#, Black must move the f-pawn (1...♗f1 fails to 2 ♘e6+ fxe6 3 ♕f8#). There are now three variations all exploiting the intersection in the lines of action of the black pieces on the square d5. Bear in mind that the bishop on c4 prevents ♘e6# and the b5-rook prevents e6#.

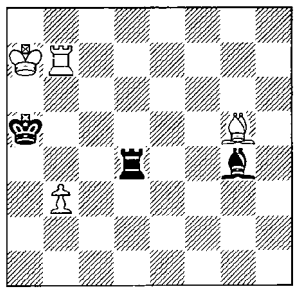
a) 1...f5+ 2 ♗d5! with 2...♗xd5+ 3 e6# or 2...♖xd5 3 ♘e6# to follow.

b) 1...f6+ 2 d5! ♖xd5 (2...♗xd5+ 3 e6#) 3 ♘e6#.

c) 1...fxg6+ 2 ♘d5+! ♗xd5+ (or 2...♖xd5 3 ♕f8#) 3 e6#. Note that 2 d5? would fail to 2...g3!.

In other words, for each of the three different moves by the black f-pawn, a different white unit plays into d5. Apart from the paradoxical element, the beauty of this problem lies in the depth and structure of the thinking needed to solve it. The solution displays great unity as well as a sort of 'conceptual geometry'.

Finally, to conclude this brief survey, I want to show another of my personal favourites. It is a mate in six from early in the 20th century. Surprisingly, it is not as well known as its merits deserve.



1.8 Mate in 6 GF(P)
T.Nissl
Akademische Monatshefte für Schach, 1910

The black king has no escape, but how does the white bishop get at it?

1 ♗h4!

Threatens 2 ♗e1+; the black rook stops this while keeping an eye on the d8-square.

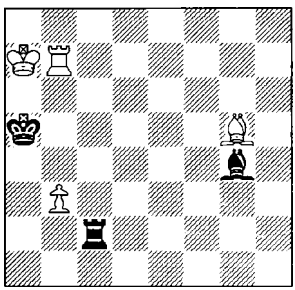
1...♖d1 2 ♗g3! ♖c1

To stop both ♗c7 and ♗e1.

3 ♗f4! ♖c2

And now the bishop returns to its starting square. Such a trip is known by the German term 'Rundlauf'.

4 ♗g5



The rook cannot cope any longer. It is not possible to prevent both 5 ♗d2 and 5 ♗d8 simultaneously, so White mates in two more moves e.g. 4...♖c8 5 ♗d2+ ♖c3 6 ♗xc3#.

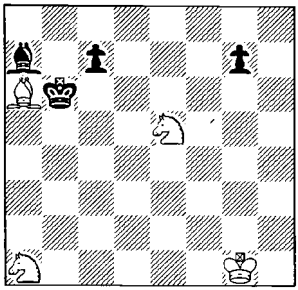
Why is this problem special? If you imagine, starting from an empty board, trying to compose a position where the white bishop has to do a 'Rundlauf' (♗g5-h4-g3-f4-g5), you would expect the problem to need many more than seven pieces. Here it is achieved in a miniature with game-like material (it is a rook and opposite-coloured bishop ending with White a single pawn up). The interplay between the white bishop and the black rook is entertaining, the solution is very elegant and the setting is perfect. An underrated masterpiece.

Previous Work in the Field

Given the enormous number of books on chess and the importance of aesthetic taste (even if only for practical reasons), there is surprisingly little published and available material on this topic. [At least that is the case in English; a number of Russian composers have published their works in conjunction with their philosophy and methods.]

Probably the most significant work was done by Emanuel Lasker. In his *Manual of Chess* the former world champion devotes one part out of six (the others being 'Elements', 'Openings', 'Combinations', 'Positional Play' and 'Examples') to 'The Aesthetic Effect in Chess'. It is well worth reading for yourself, but basically his theory of chess aesthetics is quite clear. According to Lasker the aesthetic effect in chess depends upon the *achievement* of the pieces. The ideal is when the pieces achieve a difficult task of vital importance (in chess terms) and can do so in one way only. The greater the achievement, the closer to the ideal – the stronger the aesthetic effect. Economy is clearly important since, if fewer pieces can accomplish the same task, the greater the achievement. It is difficult to disagree with anything Lasker writes on chess aesthetics. In our book we will be trying to take the theory

further. Lasker gives several examples (problems, studies and games) of which the following seems to be his favourite:



1.9 Win PGFD
E.Ratner
Em.Lasker's
Lehrbuch des Schachspiels, 1926

The position is a win for White if he can stay two pieces up, but he cannot prevent Black picking off one of the knights.

1 ♗e2!

The reason that this is the only square to win is well hidden. 1 ♗f1 ♔b7+ 2 ♔h1 ♗d4 draws (compare this with the main line), while 1 ♗d3 ♔b7+ 2 ♔g2 ♗d4 3 ♘b3 ♗xc5 4 ♘a5+ ♔b6! 5 ♘c4+ ♔c5 6 ♘xe5 ♔d4! regains the piece.

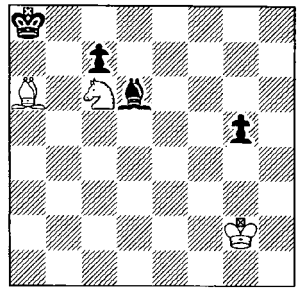
1...♔b7+ 2 ♔g2 ♗d4 3 ♘b3 ♗xe5 4 ♘a5+ ♔a8

The only square since 4...♔c8 allows 5 ♗g4+ and 6 ♘c6+.

5 ♘c6 ♗d6

It is not important where the bishop goes.

6 ♗a6 g5

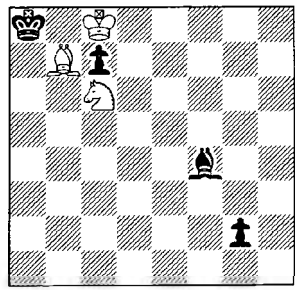


Now that his opposite number is trapped, the white king races to c8 to pick off his prey. Black's best chance lies in advancing his g-pawn. If White had played 1 ♗f1? this plan would have drawn for Black, since 1...♔b7+ 2 ♔g2 blocks the bishop (see the note to move four). So White would have been forced to play 2 ♔h1, losing critical time for the final phase. Clever stuff, huh?

7 ♔f3 ♗f4 8 ♔g4 ♗d2 9 ♔f5 ♗f4

If the g-pawn moves White can just take it or, more dramatically, go straight for the mate anyway.

10 ♔e6 g4 11 ♔d7 g3 12 ♔c8 g2 13 ♗b7#



'The white army is composed only of heroes... The above composition comes near to the ideal' – Lasker. It is certainly a wonderful piece of chess action - not easy to solve since you have to take Black's play into consideration, too. It is particularly nice (and deep) the way White's first move is the only one to win. The black king is lured into the corner, trapped and executed in both a surprising and elegant fashion. The play has a pleasant flow to it, with each piece just succeeding in doing what it has to do. The general himself (the white king) closes in to finish off his counterpart.

Lasker's book was first published in England in 1932. Since then there have been several books consisting purely of artistic compositions with practically no commentary or theory except, perhaps, for a brief introduction. Roycroft's *Test Tube Chess* is an exception. The book focuses on studies and has a rich, rambling commentary which is well worth reading. Also excellent is John Nunn's *Solving in Style* which has many nice examples clearly and logically presented from the solver's point of view. We will be trying not to duplicate too many of the examples from these works, although some of them are such masterpieces that we feel compelled to use them. Neither Roycroft nor Nunn focus exclusively on aesthetic considerations and no 'theory of chess aesthetics' emerges in either book. We believe the theory in this book to be original.

Other books of interest include *Creative Chess* by Avni, the *Oxford Companion to Chess* (Hooper and Whyld) and one chapter of *Learn Chess with Garry Kasparov* where the World Champion gives his views on chess art. Avni's book contains an interesting selection of positions where unusual measures are called for, but again the positions are not looked at from an aesthetic or artistic viewpoint, but more from a psychological or 'creative thinking' slant. *The Oxford Companion* has interesting background material on composers and composition. As could be gathered from the quotes given earlier, Kasparov enthuses unreservedly about the beauty of the game. He gives some good examples too, but the five pages are not enough for him to reveal any deeper thoughts on the subject. For those interested specifically in problems, *Chess Problems: an Introduction to an Art* (Matthews, Lipton and Rice) can be recommended. It systematically surveys the problem field with some interesting general commentary too, but again there is no distinct aesthetic theory.

Review of recent Literature

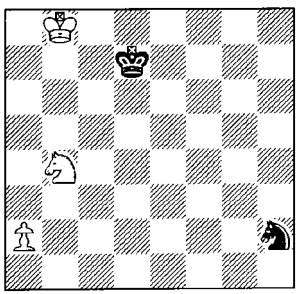
Over a decade has passed since the first edition of *Secrets of Spectacular Chess*, and the section on 'previous work in the field' needs updating with a review of recent literature. Indeed even the concept of 'literature' needs updating. In the past it was enough to consider book publications and the major journals if you wanted to stay abreast of your field, now the technology has

changed and the internet is the first port of call. A number of sites can be found which present artistic games, studies and problems. One of the most elegant is *Art et curiosités échiquéennes* at www.jmrw.com (click on the chess set).

There are six-piece databases accessible on the net. Enter any position you like with six or less pieces and the database will tell you the result and how many moves the game will last with best play. Such a database can be found at *Knowledge4IT* (www.k4it.de).

This is an invaluable resource for composers and enthusiasts alike. Using this database the reader can not only try to create a study but also check if it is sound all at the same time.

Another trick is to explore the mutual zugzwang positions as listed by the database. One of the first top players to use this method was John Nunn, who came up with the following masterpiece in 1995:

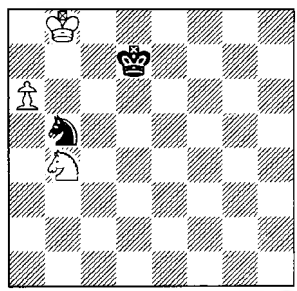


1.10 Win PD
John Nunn (computer database) 1995

1 a3!!

An incredible move, both deep and strongly paradoxical, when it seems that White must rush to exploit the out-of-play black knight. The point is that after the obvious 1 a4? ♘f3 2 a5 ♘d4 3 a6 ♘b5 we have a position of mutual zugzwang since 4 ♔b7 (4 ♘d5 ♔c6 5 ♘c3 ♔b6!) allows 4...♘d6+ 5 ♔b6 ♘c8+. In fact the study exhibits a whole string of related mutual zugzwang positions.

1...♘f3 2 a4 ♘d4 3 a5 ♘b5 4 a6



The mutual zugzwang position, only this time – as a result of White's brilliant tempo losing first move – it is Black to move. Simply put, Black's problem is that after he moves the king to d6 the square is blocked and unavailable to the knight so White can play ♔b7.

4...♔d6

If 4...♔d8, 5 ♘d5 ♔d7 6 ♘c3 wins.

5 ♔b7 ♘c7

It is not easy to demonstrate all the variations but a good sample line is 5...♔d7 6 ♘d5 ♘d6+ 7 ♔b8 ♘c8 8 ♘b4 ♔d8 9 ♘c6+ ♔d7 10 ♘e5+ ♔d8 11 ♘c4 ♔d7 12 ♔b7 ♔d8 13 ♘b6 ♘d6+ 14 ♔c6.

6 a7 ♘a8 7 ♘d5!

Not 7 ♔xa8 ♔c7, with a draw since knights cannot lose a move.

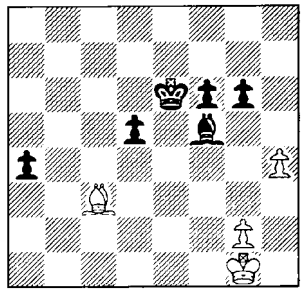
7...♔d7 8 ♘b6+

White will queen the pawn.

Tim Krabbé's excellent *Chess Curiosities* website (www.xs4all.nl/~timkr/chess/chess.html), has a section called the '110 most fantastic moves ever played.' Tim writes, 'The idea of making a collection of Fantastic Moves began with Shirov's **47...♗h3** against Topalov in [the 1998] Linares. It inspired *British Chess Magazine* to have a poll for the 'Most Amazing Move of All Time' and this in turn, as a lifelong collector of the bizarre and the beautiful in chess, inspired me.'

We will come to Shirov's amazing move shortly. The debate surrounding the 'best move of all time' has been a focal point for consideration of what is aesthetic in chess, not only on the net and in magazines, but also in books. *100 Awesome Moves* by Eric Schiller (Cardoza Publishing) and British Grandmaster John Emms's *The Most Amazing Chess Moves of All Time* (Gambit) both came out in 2000. The concept behind Schiller's Millennium book was to highlight one fantastic move from a game in every year of the 20th Century and no ordering of positions was given other than chronological. Emms gives his top 20 moves in chapter nine and it is interesting not only to see the moves but also to compare them with those in Tim Krabbé's selection.

The Shirov move came number one in the Emms book and number two on Krabbé's list. Let us have a look at the move that has won such praise:



1.11 Black to Play PD
V.Topalov-A.Shirov
Linares 1998

There are chances for a draw with opposite-coloured bishops, especially if White can set up a blockade on the dark squares. However there are no chances to draw if you are facing an opponent without preconception and who has a pure ability to calculate out a forced win in the way Alexei Shirov did:

47...♗h3!!

The motivation for this deep and superbly paradoxical move is dynamic. The more normal 47...♗e4 (also attacking the g2-pawn) blocks the e4-square for the black king. It would be difficult to prove that no move other than 47...♗h3 wins, since Black has a two-pawn advantage, but it is quite clear that 47...♗h3 does win once you have calculated the lines clearly, and thus it

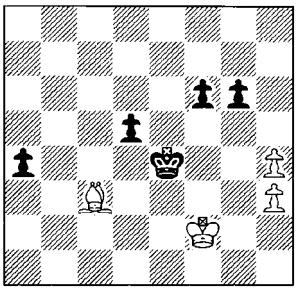
is a quite superb move.

The aesthetic evaluation does depend to a significant extent on whether there is an alternative, perhaps more prosaic, win. This is mentioned elsewhere, e.g. in our write-up of the Averbakh-Kotov game (see page 59).

48 gxh3

48 ♔f2 ♔f5 is no better since White cannot stop ...♔e4 without giving up the g2-pawn, which is too much.

48...♔f5 49 ♔f2 ♔e4!



50 ♗xf6

If White does not take this pawn then it will soon advance and Black will have three passed pawns – too much for White to deal with.

50...d4 51 ♗e7

This loses, but how else to stop 51...a3?

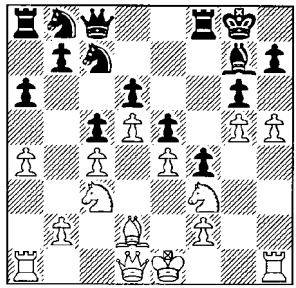
51...♔d3 52 ♗c5

Otherwise just 52...♔c2 and White cannot stop both the d-pawn and the a-pawn.

52...♔c4! 53 ♗e7 ♔b3 0-1

Black cannot be stopped from playing a combination of ...♔c2 and ...d3, and afterwards ...a3 to deflect the bishop away from controlling d2.

Number one on the Krabbé list (and number 12 on the Emms list) was a move I personally believe has absolutely no claim on the title of 'most fantastic move ever played'. Indeed I think it is just a mistake:



1.12 Black to Play (P)
Y.Averbakh-B.Spassky
Leningrad 1956

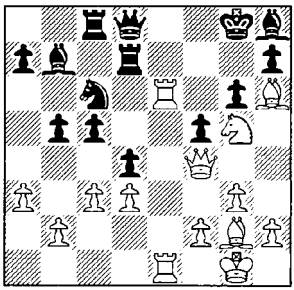
Black is somewhat passive, but normal would be to settle patiently for a defensive game. Spassky must have wanted to intimidate his opponent or cause a fight at all costs since he opted for the extraordinary **16...♘c6?**, giving away a piece for a pawn, and a little play based on putting his knight on d4 and his rook on the b-file. The move may have psychological and pragmatic strengths, but objectively I am almost sure it should lose.

17 dxc6 bxc6 18 ♘h4

Probably 18 h6 ♗h8 19 a5 was clearer, when eventually White will open the game with the pawn break b4. He will have one extra piece as well as

having the black bishop on h8 out of play, which should amount to an easy enough win. As it was the game was drawn on move 73 after various adventures. Aesthetically and from a purist point of view I think 16...♘c6 has very little going for it. If it was not for the fact that such a famous player had a punt with it, the move would have sunk back into obscurity where it belongs. Thumbs down from me for that one Boris, entertaining though it was!

For sheer paradoxical shock value I was more impressed by number 16 on the Emms list:



1.13 White to Play P

R.Meier-S.Müller

Switzerland 1994

1 ♕c7!!

This must have been an absolutely fantastic move to have had the satisfaction of making. There is something splendidly paradoxical about placing the queen in the middle of the enemy camp, en prise in various ways, yet it is totally sound and winning. If this were a study, it would be marked down for having a 'dual' since the similar idea 1 ♗d5!! ♖xd5 2 ♕c7!! ♖d7 3 ♕xc8! works just as effectively.

The treble sacrifice in this real game position is unusual and striking, even if problemists have had a field day with the Plachutta theme in general.

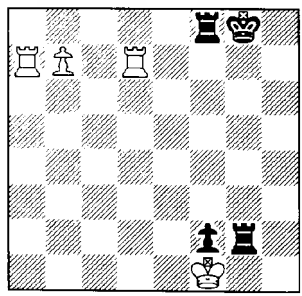
1...♖dxc7

The alternatives all lose too: 1...♕xc7 2 ♖e8+ ♖xe8 3 ♖xe8+; 1...♖cxc7 2 ♖e8+; and 1...♘e5 2 ♕xd8+ ♖cxd8 3 ♗xb7 ♖xb7 4 cxd4 cxd4 5 f4 when White wins a piece.

2 ♖e8+ 1-0

Black resigned because 2...♕xe8 3 ♖xe8+ ♖xe8 4 ♗d5+ leads to mate.

Of course the study world comes up with quite a few candidates for 'most sensational move' too. Several such moves will be found in this book (the Nunn/database 1 a3!! shown a couple of pages back is not too bad for a start). Another candidate might be the winning move in the following position that concludes a Kasparian study:



1.14 Win P

1 ♖f7!!

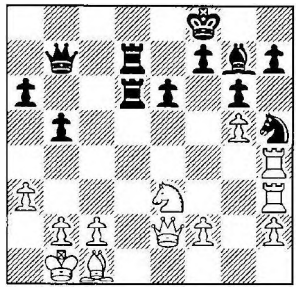
A spectacular and winning move, without which White would have been quite lost.

After an enjoyable detour into the world of sensational moves it is time to return to our review of recent literature. From the viewpoint of aesthetic significance, not that much has been published in the last decade by the mainstream chess publishers. The most significant work to be published was Garry Kasparov's *My Great Predecessors* series, which looks through expert eyes at the key games that defined the path of chess history. Kasparov writes excellently but the emphasis is on the personalities involved (and their psychological predispositions) rather than on the aesthetic appreciation of the moves.

Another work worthy of mention is Iakov Damsky's *Chess Brilliancy* (Everyman Chess 2002), which looks at the history of best game prizes and considers in detail the best games (as decided by panels of experts in the *Chess Informant* series) over three decades of the late 20th Century. Naturally the book presents a fine selection of brilliant games, but to be honest I was disappointed by the lack of any compellingly written aesthetic theory to accompany them.

Talking of best game prizes, one of your co-authors actually managed to win one for the following effort at the Staunton Memorial Tournament in London, 2005:

The game had reached a critical stage as Howell (soon to gain his grandmaster title at 16 years of age) is preparing his forces for a breakthrough against the black king based on ♖xh5. Black needs counterplay quickly. Play continued:



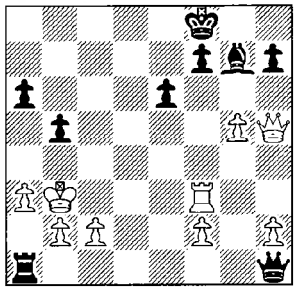
1.15 Black to Play
D.Howell-J.Levitt
London 2005

33...♕h1! 34 ♖xh5 gxh5 35 ♕xh5 ♖d1!

This move may be considered the first move of a combination lasting until the end of the game and culminating with 47...♔e8!. I say 'may be' since at the time I did not see quite that far, but only saw enough to justify playing the move. Sometimes you can stumble into playing the moves of an elegant, winning combination without actually seeing the whole thing as one. A number of philosophical questions arise: Is there luck in chess? Can brilliancy be accidental? Is a move 'deep' if its hidden point is revealed only after the game and was not seen at the board by the player? Does a tree falling down in a forest make any sound if there is nobody around to hear it?

On the question of luck it makes sense to think in terms of luck being ever-present in chess (a player could after all keep picking the best move by chance) and that increasing skill equates to a level of control that leaves less and less to chance.

36 ♘xd1 ♖xd1 37 ♖f3 ♖xc1+ 38 ♔a2 ♖a1+ 39 ♔b3



39...♖xa3+! 40 ♔xa3 ♕a1+ 41 ♔b4 ♕a4+

Taking the pawn with 41...♕xb2+ limits the queen's options.

42 ♔c5 ♗d4+ 43 ♔d6

By this stage (after the time control at move 40) all the finer details were in place and I was in full control of the position: If 43 ♔c6, then 43...♕c4+ (43...b4+? 44 ♔d6 is inaccurate) 44 ♔b7 ♕d5+ 45 ♔xa6 (45 ♔c7 ♕c5+ transposes to the game) 45...♕c6+ 46 ♔a5 ♗b6+ 47 ♔b4 (or 47 ♔a6 ♗c5+ 48 ♔a5 ♕b6 mate) 47...♕c4+ 48 ♔a3 ♕a4 is mate.

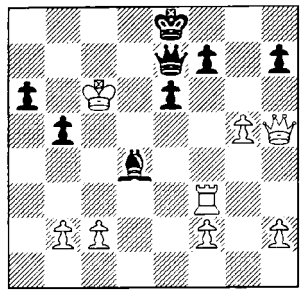
43...♕b4+ 44 ♔c6 ♕c5+ 45 ♔d7

If 45 ♔b7 ♕a7+ 46 ♔c6 ♔e8 White gets mated or has to give up material.

45...♕a7+ 46 ♔d6

46 ♔c8 ♗e5 47 ♖c3 ♕b8+ 48 ♔d7 ♕e8 is also mate.

46...♕e7+ 47 ♔c6 ♔e8 0-1

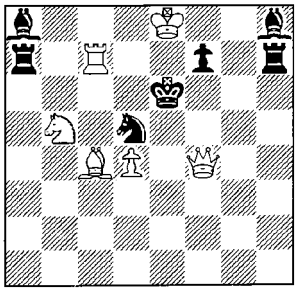


The only way to avert the threat of 48...♕d7 mate is to enter a hopeless ending a piece down after taking on f7. Aesthetically it is an attractive finish with a striking tactical blow (39...♖xa3+) followed by a king chase and finished off with a 'quiet' king move (47...♔e8) on the other side of the board.

To be honest I have my doubts as to whether writing my contribution to this book had much effect in enabling me to find any of the moves in this game. A lot depends on putting yourself about (playing a lot, setting up opportunities where you might play a nice game) and luck. In this case the luck was in the existence of the move 47...♔e8 (which I had not seen when playing the initial combination). Of course, even given the same strength, players of a certain style (especially those with a propensity to taking risk and engaging in complex, unclear and sacrificial play) are more likely to play spectacular chess than those of a more 'safety first' disposition.

I have digressed a long way from our review of the literature. There was little else to discuss in terms of books about the game from the last decade but there have been some books about problems worthy of a mention. *Chess Wizardry: The New ABC of Chess Problems* by John Rice (Batsford 1996) came out a year after *Secrets of Spectacular Chess* and is an excellent and substantial taster of what chess problems have to offer. Sir Jeremy Morse's *Chess Problems: Tasks and Records* (Faber and Faber 1995, revised edition 2001) is a fabulous labour of love focussing on record-breaking problems of various types. Both these books are marvellous for dipping into and can be recommended to anyone that thinks they know a thing or two about chess.

Here is one example from the Morse book, position number 462 of 837 in the first edition:



1.16 Mate in 2 GP(D)
L.Loshinsky, 1st HM
Tijdschrift van den
Nederlandschen Schaakbond, 1930

This quite well-known problem must rank as one of the most elegant mates in two ever composed. Surprisingly the key move (and only solution) is a waiting move – the calm retreat 1 ♗b3 – but one also needs to fully demonstrate the resulting zugzwang.

1 ♗b3

With the following mates:
1...♖b7 2 ♖c6#; 1...♗b7 2 ♖e7#;
1...♗c6+ 2 ♖xc6#; 1...♗g7 2 ♕xf7#;
1...♗f6 2 ♕g4#; 1...♗c5 2 ♕xe5#;
1..♖g7 2 ♕e5#; 1..♖h1 2 ♕xf7#;
1...f6 2 ♕e4#; and 1...f5 2 ♕d6#.

Sir Jeremy Morse, one of the leading problemists in England and the former chairman of Lloyds Bank, comments that this problem 'by one of the greatest composers of all time, shows the record of three Grimshaws with wonderful delicacy: there are only thirteen men, a waiting key, three extra mates and no duals'.

In terms of our theory of aesthetic elements, the key is surprising or paradoxical since Black has a lot of force on the board - which seems relatively free to move – yet all moves lead to self destruction. The geometry of interferences that demonstrate the zugzwang is very rich. One could consider the problem as a whole deep in the sense that the solver must see quite a lot of variations before fully grasping that there is a zugzwang. The point of 1 ♗b3 is revealed just one move later so maybe one should speak of breadth rather than depth, but aesthetically it is

similar to normal depth in that there is quite a lot of work to do before the point of the original move can be understood. The problem could be said to be many moves wide even though as a mate in two it cannot be many moves deep.

Philosophical Perspective: Art, Analogies and Taste

Beauty and taste have long been topics for heated philosophical debate. Plato, Hume, Kant and Wittgenstein have been among those tackling questions such as: What is art, what is its value? How do you define beauty? How is it perceived? Can taste be objective? Not surprisingly, these questions lead to further and still broader questions. There are many conflicting theories and partial answers involving terms such as 'imitation', 'expression', 'representation', 'form', 'symbolism', 'yūgen' and 'sōō'.

Our book will assume no previous knowledge of any of this, but, in case you were wondering, the Japanese Zeami Motokiyo (1363-1443) argued that the value of art lies in yūgen ('mystery and depth') and that the artist should follow the rule of sōō ('appropriateness to context') – a fine theory when applied to chess, and he probably never saw the game.

While reading up on aesthetics in general I was surprised just how well many of the theories applied to chess. It confirmed me in my view that chess composition is an art form to be reckoned with. Perhaps there are limits to what can be expressed (it is hard to show 'compassion' in a mate in two for example), but composition can evoke a wider range of responses than is commonly imagined. I've experienced surprise, astonishment, depth, pleasing geometrical patterns, humour and, of course, pleasure just looking at the solutions to positions. Naturally the competitive game can involve a range of other emotions (fear, relief, etc.), but that is not currently our concern.

Analogies

It is quite easy, and sometimes even useful, to draw analogies between chess and other forms of art. Take writing for example. If the game is likened to reality then the study is similar to the novel. There should be nothing irrelevant, no waste – both should, ideally, be crisp and clear and flow from start to finish carrying the solver/reader along. Extending the analogy further, problems (with their precise stipulation, 'unnatural' to the real game) would be like some form of more structured writing – limericks or sonnets perhaps.

To some extent it is possible to create criteria of aesthetic beauty applicable across the range of forms that beauty can take. Aquinas (around 1270) tried to define beauty as that which pleases solely in the contemplation of it, and which exhibits clarity, appropriate proportion and perfection. Around 1450, Leon Alberti (writing on architecture) proposed that beauty is an order or arrangement such that any

change is for the worse. Such thoughts apply quite well to chess, too. Some of the criteria for chess beauty we develop in this book may apply to other fields (such as literature, music, paintings, cinema, architecture, the human form, fashion, nature...) but, if so, that would be purely accidental. They are designed to incorporate only the individual nature of chess composition (it is even necessary to have additional criteria for competitive chess). Ultimately, chess is its own language.

Chess, however, may prove to be a useful testing ground for more general aesthetic theories, in the same way as computer chess has been a measure for artificial intelligence. Chess, being a closed system, can be clear and testable, which gives it an advantage over many other fields.

Relaxation of Tension

Earlier we discussed the possible educational, cultural and practical value of chess art, but what causes the intrinsic pleasure when somebody appreciates a fine chess game? One interesting description (or theory) is that pleasure results from the relaxation of tension. The pleasure of winning is because of the great relaxation of tension when the game ends. A chess problem (or a murder mystery) can create a certain tension which is resolved as the solution becomes clear, as the elements fall into place. Music can create a tension which results in pleasure as the brain processes and understands it. If the music is too simple, by the time you have heard it a couple of times it fails to create any further tension and consequently no further pleasure. If it is too complex, you may never resolve it and hence never enjoy it.

The ability to understand the content of something, be it a sequence of chess moves, a film, or a piece of music, is crucial to deriving pleasure from it. Of course, this ability to perceive the order and reasonableness of a chess sequence (or the harmony in music, or the consistency of a film) will depend on how sophisticated the viewer/listener is. You cannot expect to enjoy any form of chess without, to some degree, understanding it. Weaker players need not despair though, since all this means is that they may need to spend a little longer in discovering the 'truth'. In chess composition the truth is not necessarily beautiful (the 'truth' has ruined many would-be beautiful ideas) but when the two coincide we have before us real chess art.

Recognizing Patterns

Broadly speaking, we regard pleasure as very much a part of the aesthetic experience. The greater the relaxation of tension, the greater that pleasure. Tackling the question of what causes pleasure on a neurological level is way outside the scope of our book.

Another theory (the first part of which is due to the Austrian Ernst Mach, around 1890) which helps to explain chess aesthetic pleasure runs as follows: in order to survive by intelligence, the human brain has become

very quick at recognizing patterns, repetitions and symmetries. The ability to discover order has been crucial to the success of human beings and their brains have evolved in such a way as to be very good at it. A number of these geometrical ideas occur on the chessboard, and the brain enjoys discovering such order. Using familiar patterns to help resolve and sort out a chess position causes pleasure since the tension created by the (initially chaotic) position is reduced. As will be seen shortly, chess 'geometry' is one of the key elements of our theory.

Taste

What creates tension in one brain, may or may not create tension in another. As pointed out above, people's ability to understand a piece of work may also vary. We have moved onto the difficult question of taste which Hume described as a peculiar kind of 'emotionally inspired discrimination'. It may vary because of intelligence, it may vary with experience, but one thing is for sure: it certainly varies! Is there such a thing as objectively good taste? Yes, we believe so. It is simply a lazy option to dismiss the subject with something like 'beauty is in the eye of the beholder'. Some chess games are better than others, some literature is 'good' and some 'bad'. Of that much we are reasonably convinced, but proving it is another matter. Perhaps, dear reader, you feel you have good taste in music (and that there is some objectivity about that taste) but could you prove it?

Rules of Assessment

Believe it or not, people have actually attempted to create a formula for the assessment of mate in two chess problems. Feed in a couple of positions and the formula decides which is the better one! We believe this is going too far. Formulating guiding principles is not easy, but if you can do it successfully (usefully), fine. Having rigid rules for assessment, an absolute formula, is another matter. Rules for assessment would imply associated rules for creation. There would be no creativity or freedom left and the art-form would be stifled. Even if the price you have to pay for freedom is that 99% of what is produced is garbage, it seems better to have that freedom than a rigid set of rules. Paradoxically, the attempt to have such rules for art generally may have helped the development of chess. Communist states greatly restricted the freedom of their artists ('socialist realism') and many frustrated and talented minds turned their attention to our politically neutral game. It was not just the Soviet *players* who were way ahead of the rest of the world, but also their problem and study composers.

So, although the choice of positions in this book was dictated by our taste, and we will often try to say why we like certain aspects of those positions, do not expect to find any clear rules for assessment. For the reasons given above we think it better not to undertake such a task. In other words, we will only partially be attempting to validate our judgements. We neither

are, nor wish to be considered, arbiters of taste.

Balance and Tension

In most art forms, introducing tension while maintaining balance is a delicate matter. How does the notion of 'balance' apply to chess and chess composition?

At the start of a game of chess, two equal armies stand facing each other across the board. There is a balance between the forces (and resources) available to Black and White. With good play, that balance is maintained. After a serious blunder, the balance is upset and the other side obtains a winning position. There have been many grandmaster games where a symmetrical type of position is reached, the pieces are swapped off and the game heads inexorably towards a draw. Such games fail to capture the interest since, although balance is maintained throughout, there is no tension. It is far more exciting when there is a balance between conflicting elements after, for example, a sacrifice. Perhaps then there could be a balance between initiative and material. Broadly speaking, the greater the tension and the longer the balance is maintained, the more 'interesting' the game.

But where is the balance in a White to play and win study? Here the notion is quite subtle, and in fact the 'rules' of creating a sound study ensure a certain balance. For a sound study, there must be only one solution (if there are two ways to do it, the study is 'cooked'). If White does not have sufficient resources there will be no win. Too many resources and there will be several wins. The 'balance' must be just right so that there is precisely one win. Similar considerations apply to problems with stipulations such as 'mate in two'. There must be a balance of force such that there is a unique solution (assuming the problem is sound). This could also be regarded as 'economy of solution'.

Here is a tricky one for you: place the white king on a6, the black king on a8 and a white rook on h1. White to play and mate in one! Here, in the sense discussed above, there is a balance – the problem is sound with a unique solution (1 ♖h8, heartfelt congratulations). However it is trivial and does not deserve a diagram, since there is practically zero tension. Because there is no tension, there is no pleasure in finding the solution (resolving the tension) and no aesthetic effect (perhaps a complete beginner might think otherwise; these notions are relative to the observer). It is the composer's job to play around with the balance and thereby create as much tension as possible.

Our Four Elements and why we have introduced them

In this book we are going to consider four basic elements:

1. Paradox
2. Depth
3. Geometry, and
4. Flow.

These terms will be defined more fully (with many examples) when we come to the individual chapters dedicated to each of them, but for the present, the following should help you to understand what we mean by them.

1. Paradox

Surprise, outrageousness. An immediate confrontational tension is created. The response to a paradoxical move might be 'How can this be possible?' or 'That simply cannot work!'. An example would be the move 2 ♕f2!! in the solution to the Gurvich study (see the first example in the book) or the underpromotion 6 c8♖!! in the Saavedra position. To win by such means is a heroic form of achievement, and, other things being equal, the more paradox in the play, the better.

2. Depth

Subtlety, complexity. A deep move is one which is not obvious (though not necessarily paradoxical) and for which the point is well hidden. Initially one does not understand it, and later the response is 'Ah, so that was the point!'. In the study by Ratner given earlier, the move 1 ♗e2! would qualify as being deep. In the Richter position 1 ♔b7!! is both paradoxical (moving away from the action) and deep. Depth relates to the complexity of what is being achieved. Again, other things being equal, the deeper the moves, the stronger the aesthetic effect. A game with no deep moves at all might be enjoyable the first time you see it, and maybe even a second time if it is good for other reasons; but some degree of depth is required to generate sufficient tension to count as a true masterpiece that can be played over many times with pleasure.

3. Geometry

Patterns, repetitions, echoes, mutual interferences between a rook and a bishop... The response might be 'Oh, what a pretty pattern!'. An example of mainly geometrical play would be the Nissl position (see the end of the brief history section). Here the bishop jockeys with the rook (in what could be described as a geometrical duel) while completing a diamond-shaped 'Rundlauf' (♗g5-h4-g3-f4-g5). In the Sam Loyd 'Organ Pipes' mate in two, the mutual interference on lines and diagonals would also be called geometrical. As explained earlier, the brain is good at spotting such patterns and the prettier the pattern that is involved in achieving something, the better (the tension is resolved in a pleasing, aesthetic fashion).

In our extended meaning of 'geometry', any striking pattern or special feature could be included. For example, if during the solution to a problem one side promotes pawns to each of the four possible pieces (Q, N, R, B – this is known as 'Allumwandlung') this would be a 'pattern' or feature that the brain might easily recognize. Many tasks and special effects achieved by composers fall into this broader 'geometry' which is not restricted entirely to its spatial sense.

4. Flow

Smoothness of movement. It relates to the length of the sequence of moves for which the tension is dynamically maintained. For example in the Rinck position (see history section), the play flows across the board as the king chases the bishop for a whole series of moves. The degree of tension (or 'area' of tension) could be seen in terms of length and depth. The response to flow might be something like: 'Whoosh! I'm being carried along!', and again, the more flow the stronger the aesthetic effect. Often, in top class studies, an elegant flow is abruptly halted by a paradoxical finish.

These four factors are relatively independent of one another and have come about after a sort of 'instinctive factor analysis' of our experience of beautiful chess ideas.

What is the point of this categorization? Basically to help us communicate about tension and the aesthetic effect in chess and chess composition. Games, studies and problems exist regardless of how we try to describe them. There is nothing 'real' about our categories; they are just words and one should not expect too much from them. As with any descriptive theory, if the categories prove helpful in communication, they will be useful and will survive. If not, they will die and we would have failed in our task. Certainly your co-authors find the categories useful. With surprising consistency and clarity we agree as to which of the four elements (one, two, three or all four of them) are present in a piece of chess action. The categories help us identify and pinpoint the tension-creating features of the play and thus to talk more usefully about aesthetic issues (and it is never that easy to talk about such abstract matters).

Limitations of our Method

We should point out that our method is completely useless for classifying games or positions since any number of our elements (zero to all four) might be involved in a single piece of chess action. To classify positions, another approach to aesthetics would be needed, i.e. one where the objective content of the 'work of art' is considered. In the case of chess this might involve such classifications as 'mate', 'zugzwang', 'positional draw', 'perpetual check' and the like. John Nunn takes such an approach in his book *Tactical Chess Endings*. There have even been books looking at a single theme, e.g. Kasparian's *Domination in 2545 Endgame Studies*.

Our approach is different. We are looking at the aesthetic response to the position and our categories are designed to help us do that. Aspects such as 'originality', 'economy', 'difficulty', 'spectacularity' and so on are part of the 'language of criticism' applied to works as a whole. We will be using such terms, but they are not fundamental elements of our approach. However a few basic thoughts should be articulated:

Originality

Naturally, when judging chess composition, originality is very important. After all, the easiest way to compose a great endgame study is to pick an earlier masterpiece and adapt it slightly! The new but unoriginal study might be just as good, if judged by purely aesthetic criteria, but would (rightly) be disparaged by the critics if the 'anticipation' was noticed. Knowing whether something is original depends on the ability to research what has gone before and on a judgement as to how similar one idea is to another. We shall not be tackling such questions.

Economy

Economy of material is a necessary condition of good composition. Anything wasted or 'heavy' immediately jars the aesthetic eye. We will be assuming the reader understands this concept without further explanation and the reader may assume that none of the composed positions in this book have unnecessary material. We will only point out when compositions are particularly striking in their use of force.

Economy of time is another, more subtle, notion. Repeating moves or winning by a long-winded method detracts from the artistic quality of a game. In problems it would be considered bad if a mate in three showed something that could be exhibited in a mate in two. Generally speaking, economy is more about 'form' rather than aesthetic content itself.

Achievement

Earlier we pointed out that Lasker based his theory of chess aesthetics on the notion of 'achievement'. Actually, achievement is a very tricky concept to deal with, since it comes in several forms. One could talk of achievement of the pieces as part of the objective content of the chess. Then there is achievement of certain 'tasks' within the world of composition. Players and solvers can achieve things too. Within the language of criticism one can also talk of the achievement of the position as a whole and whether the composer succeeds in realizing his intention. It is quite easy to confuse these different types of animal and, to avoid communication difficulties, it is probably best not to rely on this notion too heavily.

Completeness

It is possible that there are forms of achievement not conveniently dealt with by our four elements. We believe our elements can be easily applied to almost all aesthetic chess positions, but it is difficult to be 'complete'. Chess art is a rich field and it is natural that there will be positions which defy attempts to categorize or explain their appeal. We considered adding a fifth element dealing with the appreciation of special forms of achievement ('special effects') but decided that it was not sufficiently useful. Of course, one could artificially achieve completeness by adding a fifth element that deals with everything not dealt with by the other four, but that would be even more pointless!

One further drawback to the approach of looking at aesthetic response is that such response is relative. To some extent we are relying on the notion of the typical man in the street, one who just happens to have a fair degree of chess sophistication and experience. Presumably an orang-utan would experience no aesthetic response when presented with a piece of chess art (although there might be some rudimentary awareness of geometrical patterns). Despite this relativity, a certain consensus between experienced chess minds is hoped for, since we could not get anywhere without it.

We hope you'll forgive the theoretical and heavy nature of this last section. In that sense it should be the worst part of a book which is, essentially, example driven. It is, of course, possible just to enjoy the positions without having any artistic or philosophical context in which to place them, just as it is possible (and fairly normal) to play good chess without worrying about the place of the game in society.

Part Two

The Elements of Chess Beauty

Before attempting to describe the elements of chess beauty in detail, it is necessary to clarify a fundamental issue: what precisely is the entity to which we apply the description 'beautiful'?

This question is surprisingly tricky to answer, because we customarily use the term so broadly and loosely. We might apply it to a game or composition as a whole, to a particular sequence of moves, a line of play, or an individual move. In compositions particularly, we often describe a group of variations or a thematic idea as beautiful.

The issue is encapsulated by Tarrasch's famous epigram, 'The beauty of a move lies in the thought behind it'. As all chessplayers will know, the 'thought behind' most moves includes other move-sequences, which, the player hopes, justify his choice. In this book we are not only concerned with the individual moves which constitute the actual game or solution, but also with their underlying ideas. These ideas, themselves fleshed out as move-sequences, not only provide each actual choice with its rationale but often form an important part of its aesthetic context.

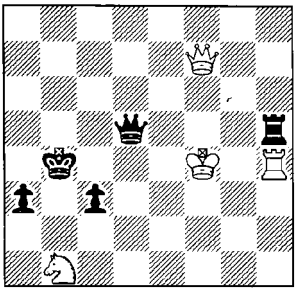
To help us define more precisely what we are talking about when we discuss aspects of a game or composition, it is helpful to introduce the concept of the move-set. We define a *move-set* as either:

(a) a sequence of moves, of length of at least one, or

(b) a collection of sequences taken together, such as in a problem which has a number of variations triggered by a key move. In short, a move-set is a group of moves which we arbitrarily create because the moves in it share common features which we wish to single out. It is important to note that this grouping may well contain moves which are 'virtual', i.e. in a sense do not

actually occur in the game or composition, but which are part of the rationale of the moves that do.

The diagram will help make the concept of a move-set clear.



Win PG(F)

H.M.Lommer

Die Schwalbe, 1965

The solution runs:

1 ♔e3+ ♔b3

If the king goes to the fifth rank, then 2 ♖xh5 wins the black queen.

2 ♖xh5!

Anyway!

2...♕xf7 3 ♖b5+

Black has four king moves:

A: 3...♔a4 4 ♘xc3#

B: 3...♔c4 4 ♘xa3#

C: 3...♔a2 4 ♘xc3+ ♔a1 5 ♖b1#

D: 3...♔c2 4 ♘xa3+ ♔c1 5 ♖b1#

The idea of this little work is to show a theme which is much more often seen in problems than in studies: starflights. By this is meant the four possible moves of the black king in answer to 3 ♖b5+ – they form the geometrical shape of a star. After each of these king moves, referred to in composer's jargon as *flights*, there should be a distinct and unique continuation for the theme to be fully shown. Thus the move-set comprising the four variations beginning with Black's third move represents the thematic content. The play prior to that (and any alternatives of note) constitutes another move-set, usually referred to as the *introduction* to the study.

Chapter Two

Paradox

'One should always be a little improbable.'
Oscar Wilde

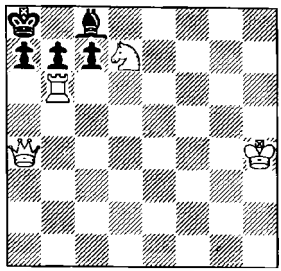
'Surprise is the greatest gift which life can grant us.'
Boris Pasternak

The first of our elements, Paradox, carries, we believe, the most powerful impact on the chessplayer's emotions. A succinct dictionary definition of the meaning of the word is sufficient for our purposes: 'A phenomenon that exhibits some conflict with preconceived notions of what is reasonable or possible...'

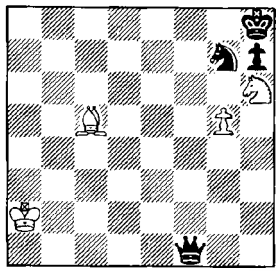
Sometimes chess moves can go so strongly against instinct that the player is left visibly shaken by the 'impossible' move. He realizes with a jolt that the move is not only possible, but also good.

Such paradox is, of course, relative and depends on the player being sufficiently experienced to have acquired preconceived notions. The stronger those preconceptions, the stronger the sensation of paradox. An obvious queen sacrifice is no longer paradoxical to a grandmaster, but a move that allows a weakening of the pawn structure might be. More developed players have more sophisticated 'rules'. The nature of paradoxical moves remains the same, though: such moves break the rules.

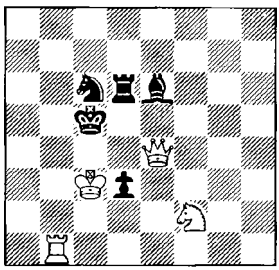
The most prevalent type of paradox is the *paradox of material*, which we shall examine first. After that we review an interesting variety of paradoxical effects classified under the broad category of *rule-breaking*. At the end of the chapter we shall look at an example of a special type of paradox – *set play* – which plays an important role in many modern chess problems.



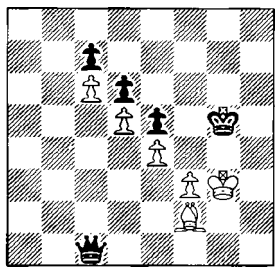
2.1 Mate in 2 P
1 ♕c6!



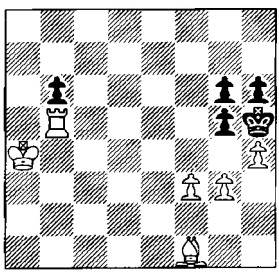
2.4 Draw P
1 ♗d6!



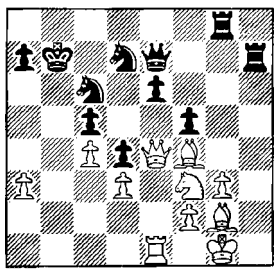
2.2 Mate in 2 PG
1 ♕d5+!



2.5 Draw P
1 ♗a7!



2.3 Mate in 3 P
1 ♖a5!!



2.6 Win PF
1 ♕xc6+!!

The Paradox of Material

The type of paradox most frequently seen in the game as played is also, quite naturally, the kind which is dearest to the chessplayer's heart: the paradox of material. The preceding 'page of paradox' should give you a clear idea of what we mean.

In 2.1, White has to put all his pieces *en prise*, while in 2.2 the surprising queen offer sets up three pretty mates. In 2.3 the shocking key gives Black the choice of capturing the rook or giving a check. The two positional draws are more complex. In 2.4 White can oscillate his bishop between the two safe squares d6 and e5, with a knight fork on f7 as protection.

2.5 shows a position where Black can make no progress since his king cannot infiltrate on either side of the board. Careful defence suffices to hold the draw. An alarming aspect of this position for King's Indian lovers is that the pawn structure is typical of that opening. In 2.6, Norwood finishes off his opponent with a dashing queen sacrifice. The black king is chased all the way up the board and mated in the corner.

Here are the sources, together with detailed solutions to the longer positions:

2.1: V.Aleksandrov, special commendation, Kubbel Memorial Tourney 1991.

2.2: F.Giegold, *Kristall* 1962.

2.3: H.W.Grant, *Evening News* 1942.

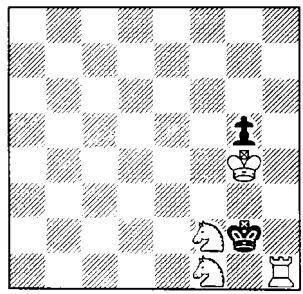
The variations of this problem run 1...b5+ 2 ♗xb5 gxh4 (or 2...g4) 3 ♗e8#, or 1...bxa5 2 ♗e2 g4/gxh4 3 fxg4/f4#.

2.4: End of a study by G.Zakhodiakin, 1st Prize, *Shakhmatny Listok* 1930.

2.5: From a study by V.A.Chekhover, 1st Commend, USSR Ch. 1948.

2.6: From a game D.Norwood-S.Marsh, Walsall Kipping 1992: 1 ♕xc6+!! ♔xc6 2 ♘xd4++! ♔b6 3 ♖b1+ ♔a6 4 ♗b7+ ♔a5 5 ♗d2+ ♔a4 6 ♗c6+ ♔xa3 7 ♗c1+ ♔a2 8 ♖b2+ ♔a1 9 ♘c2#.

Now try solving one for yourself – and do not be afraid to sacrifice in your search for the solution. You can remain a control freak even with limited means!



2.7 Mate in 5 PF(D)
A.Dreyers
6th-7th Place, Champ. Latvian SSR 1957

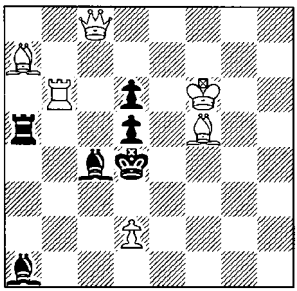
Diagram 2.7 is a typical composer's interpretation of material paradox:
1 ♘h3! ♔xh1 2 ♔f3!

Note how White has to get the timing of his moves right.

2...g4+ 3 ♔g3 gxh3 4 ♔f2 h2 5 ♘g3#

White has only three pieces apart from his king, yet to force mate in five he has to sacrifice two of them – a fine achievement. Did you manage to solve it? Such problems, in which Black is restricted to a single move at each turn, are by their nature relatively easy for the experienced solver.

The next example shows a typical two-mover paradox.



2.8 Mate in 2 P(G)
G.H.Goethart, 4th Prize, The Problemist 1952

The key is **1 ♕a6!!** which not only offers the queen to two black pieces, but also gives the king a flight square on c5 – with check! The purpose of this incredible move is simply to shut off the black rook from the a7-bishop, threatening mate by 2 ♖b5#.

If **1...♖xa6** then **2 ♖xa6#**, while **1...♗xa6** creates a second flight on c4 but allows the double check **2 ♖b4#**.

The problem also demonstrates a rule-breaking type of paradox with **1...♔c5+** ('don't allow the black king to move' and 'don't allow Black to give check' are the 'rules' which are implicit in this sort of position), which is met by **2 ♖b2#**, shutting off the a1-bishop.

A very clever geometrical variation occurs after **1...♗b5**. This move again vacates c4, but it also shuts off the white rook, preventing 2 ♖b4#. On the other hand, it interferes with the black rook's ability to interpose on c5, so White can play **2 ♖c6#**.

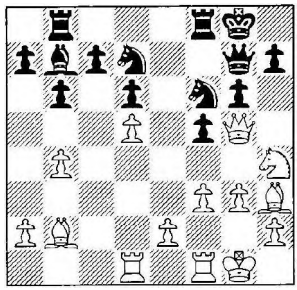
As far as the game as played is concerned, the paradox of material is clearly top of the pops, covering all categories of sacrifice from the Queen's Gambit to the goriest conceivable combination. Its essence lies in the fact that, to be successful, a sacrifice involves the investment of something tangible in exchange for something abstract – an advantage in time or position – which turns out ultimately to be the more important. Much has been written about sacrifice in chess. Here we will merely state that, other things being equal, to have a preponderance in material is to have an advantage; therefore, to sacrifice material and thereby to obtain an advantage appears paradoxical.

At its best, the paradox of material is the stuff of which immortal games are made. At its worst, it is redundant, a gesture towards art where a more prosaic course is the more effective.

As an example of sacrifice in the game, we give here a combination of a sort which is comparatively infrequent: the motivation of the sacrifice is entirely to gain time. (Most combinations naturally involve a strong time ele-

ment, but there is generally at least one major positional element resulting from the sacrifice, such as a line opening or a square blocking).

Study Diagram 2.9 from White's point of view.

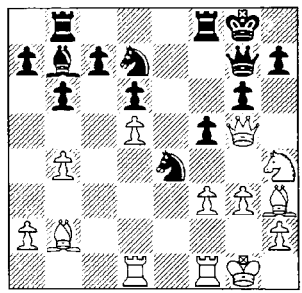


2.9 White to Play
A.Alekhine-C.H.O'D.Alexander
Nottingham 1936

If you imagine the white queen on d2 instead of g5, White would have the combination 1 ♗xf5!. Then, if Black did not capture, he would soon lose owing not only to the pawn deficit, but even more because of the raking white bishops. On the other hand, playing 1...gxf5 2 ♘xf5 would leave Black with the awful choice of losing the queen (2...♕g6 3 ♘e7+, or 2...♕f7 3 ♘h6+), or the king after 2...♕h8 3 ♘h6+ ♔g7 (note that 2...♕h8 was a selfblock) 4 ♕g5#. With the queen on g5, however, White cannot play 1 ♗xf5? since 1...gxf5 gains time for Black because his queen threatens White's. If he prepares the combination with 1 ♕d2, White will give Black time to defend, e.g. with 1...♖be8, or even 1...♔h8, which remove one or both of the knight forks given in the hypothetical variations above. What White needs is a means of removing his queen with tempo, i.e. with gain of time, so that Black is unable to defend because he has his hands momentarily full. This Alekhine achieves with admirable elegance as follows:

1 e4! ♘xe4

A counter-combination which seems to win the pawn. Black has no alternative, since otherwise the bastion on f5 collapses without compensation. Note that 1...fxe4 2 ♗xd7 loses Black a piece.



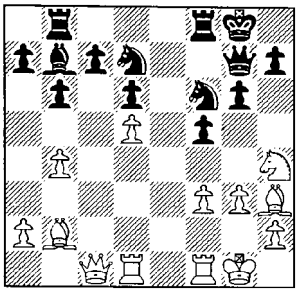
2 ♕c1!

Of course, Alekhine had foreseen Black's last, with which he attempts to limit the damage by giving up a small amount of material: 2 ♗xg7? ♘xg5 3 ♗xf8 ♘xh3+ 4 ♔g2 ♔xf8 5 ♔xh3 ♘f6 and, although he has lost the exchange, Black is winning a second pawn, whilst the 'oomph' has gone from White's position. The text is even more convincing than 2 fxe4 ♕xb2 3 exf5 (3 ♗xf5 ♕g7) 3...♕f6 4 ♕xf6 ♘xf6 5 fxg6, which

also gives an advantage.

2...♘ef6

Forced – both queen and knight were attacked.



3 ♗xf5! ♔h8

Black dare not capture the bishop because of the variations given above, and now, even though he is not a pawn ahead, Alekhine shows that his powerful bishop pair gives him an overwhelming advantage.

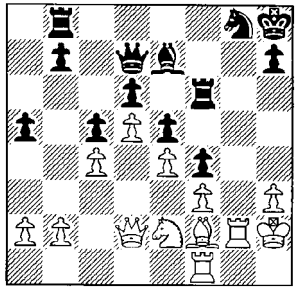
4 ♗e6 ♗a6 5 ♖fe1 ♘e5 6 f4 ♘d3 7 ♖xd3!

Finishing the game with a flourish although, given the position, this particular paradox has little surprise value.

7...♗xd3 8 g4 Black resigns

There is nothing to be done about the forthcoming catastrophe on the long diagonal.

For our last example of traditional sacrifice we have chosen a celebrated game in order to subject it to a fresh scrutiny. Diagram 2.10 arose in the famous game Y.Averbakh-A.Kotov, World Championship Candidates Tournament, Zurich 1953.



2.10 Black to play
Y.Averbakh-A.Kotov
Zurich Candidates 1953

Both players have been massing their pieces on the kingside, but Black appears to have some way to go: the ♖b8 and the ♗c7 particularly seem to require further deployment. So much greater, then, the thrill of Black's next:

30...♕xh3+!!

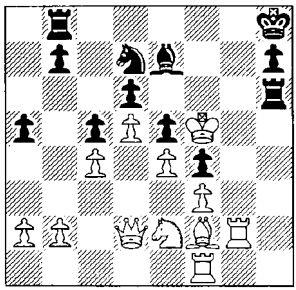
White must capture, since after 31 ♔g1 ♖h6 it is all over.

31 ♔xh3 ♖h6+ 32 ♔g4 ♘f6+ 33 ♔f5 ♘d7

When Kotov sacrificed his queen, he must have foreseen this position and that the threat of 34...♖f8+ 35 ♔g4 ♖g8+ 36 ♔f5 ♖f6# is very hard to parry. In the heat of the moment, and perhaps because he was not a problemist, Kotov failed to play a prettier winning blow whose logic is shared by many a problem's key move: 33...♘g4!?. The idea is that, because the knight's move is merely required to clear a line and its destination does not matter much, it might as well shut off the g2-rook and

prevent it from moving to g5, which is indeed the defence found by Averbakh in the game.

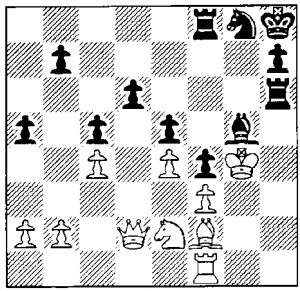
We shall return to analyse what might have happened had Kotov played this second paradoxical move after we have studied the rest of the game. As we shall see, 33...♘g4 is not at all easy to calculate against a ticking clock. Kotov's choice is indeed good enough for a win and bears out his fine judgement and perception in playing the queen sacrifice. And it is precisely this judgement that makes this game such a worthy beauty prize winner: because the sacrifice could not be calculated to a conclusion, it is elevated above the status of a 'mere' combination – pretty though that would have been.



34 ♖g5! ♖f8+ 35 ♔g4 ♘f6+ 36 ♔f5 ♘g8+ 37 ♔g4 ♘f6+

Kotov repeats the position to gain time on the clock. Taking care to avoid a threefold repetition, he performs a similar operation after capturing the d5-pawn. Such procedures might be regarded as aesthetic blemishes, but this would be very harsh, given the fact that Kotov and Averbakh are playing the game, not composing it.

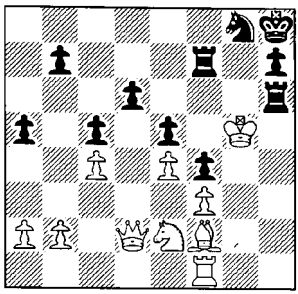
38 ♔f5 ♘xd5+ 39 ♔g4 ♘f6+ 40 ♔f5 ♘g8+ 41 ♔g4 ♘f6+ 42 ♔f5 ♘g8+ 43 ♔g4 ♗xg5



Black has regained some of the sacrificed material and threatens the 'quiet' 44...♗e7 followed by 45...♘f6+ 46 ♔f5 ♘d7+ 47 ♔g4 ♖g8+ 48 ♔f5 ♖f6#. White's pieces are so cut off by the pawn-chains that, as in many problems, there is very little they can do in the available time to stave off the inevitable. For example, White can attempt to disrupt proceedings with 44 ♗g3 ♗e7 45 ♗xf4, but the continuation would be 45...exf4 46 ♘xf4 ♖h4+ 47 ♔g3 ♖hxf4 and the material balance has swung decisively in Black's favour.

44 ♔xg5 ♖f7!

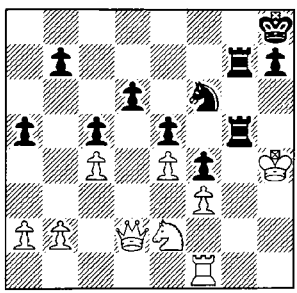
Yet another delightfully 'quiet' continuation, threatening mate in two by 44...♖g7+ and 45...♖f6#. The desperate attempt 45 ♘xf4 fails to 45...♖g7+ 46 ♘g6+ ♖gxg6+! (not 46...♖hxg6+? 47 ♔h5 and the queen sneakily guards h6!) 47 ♔f5 ♘e7#.



45 ♗h4

To guard the f6-square. The position highlights the feature which is the foundation of the queen sacrifice: only the bishop defends the white king and – where it counts – Black is actually material ahead.

45...♖g6+ 46 ♔h5 ♖fg7 47 ♗g5 ♖xg5+ 48 ♔h4 ♘f6



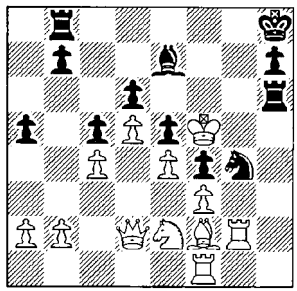
Black has arranged to win the bishop under circumstances where the white king remains in a mating net. Next to go is the knight.

49 ♘g3 ♖xg3 50 ♕xd6

Because of Kotov's repetition-avoidance procedure on move 38, Averbakh survives a couple more moves than he should have done.

50...♖3g6 51 ♕b8+ ♖g8 White resigns

Let us now consider the position after the beautiful 33...♘g4!?.



2.11 White to Play

White's only defence is:

34 ♘xf4

Now Black must avoid playing 34...♖f8+? 35 ♔xg4 ♖g8+ 36 ♘g6+ ♖gxg6+ 37 ♔f5 ♖h5+ 38 ♖g5 ♗xg5! 39 ♔g4! ♗xd2– 40 ♔xh5, which may be insufficient to win. This variation shows the down-side of 33...♘g4 – if the knight were still in existence, Black would be winning easily. Instead, the correct continuation is quite 'problem-like':

34...♖g8!

Threatening 35...♖f6#.

35 ♘h5 ♖hg6! 36 ♕g5

The only way to stop mate.

36...♗xg5! 37 ♔xg4

Now a discovered check by moving the bishop from g5 leads to the win of the g2-rook and a comfortably winning advantage of the exchange for Black.

It is evident that this line is not clearly better or worse than the best play which could have occurred after 33...♘d7. Comparing them aesthetically, we note that the two variations share the attribute of 'quiet play'. 'Quiet' play is paradoxical, because you expect the side who is down in material to keep checking and/or capturing so as to give his opponent's superior force no time to enter the fray. But the 33...♘g4 variation is the prettier, because it possesses more paradoxes: the further sacrifice of the knight and the refusal to capture the white knight after 34 ♘xf4. In addition, there is the point of 33...♘g4 – the blocking of the rook on g2.

There is, however, an aesthetic flaw in this game. The existence of two equally strong alternatives undermines our satisfaction with the sacrifice. It implies that the sacrifice was, in a sense, too strong, and the defender really stood very little chance. Just how serious this flaw is for the aesthetic value of the game is largely a subjective matter. In a composition, on the other hand, the alternative would be labelled a 'dual' and might well have a grave effect on the evaluation of the work. The key difference is the sporting element, which provides this brilliancy prize-winning game with the poetic licence to make light of this defect.

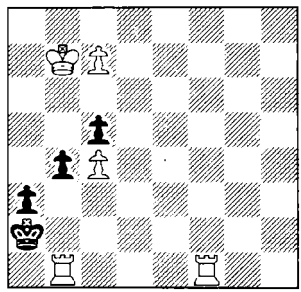
Underpromotion

Underpromotion – promoting to a piece other than the queen – is a form of the paradox of material, and a particularly delightful one. It is a great favourite among composers in all genres. The aesthetic possibilities are very numerous in spite of the fact that there are so few motivations for underpromotion. In fact, there are just three logical reasons for underpromoting (we are not counting whimsical or 'sadistic' purposes):

(1) Stalemate avoidance;

(2) Positions where a knight is more effective than a queen;

(3) Self-stalemate.



2.12 Mate in 4 PD

O.von Krobshofer

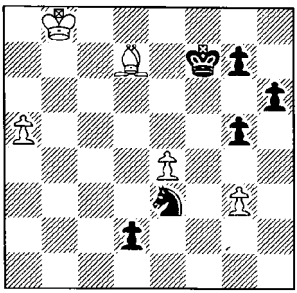
Münchener Neueste Nachrichten 1904

No. 2.12 is a particularly fine illustration of stalemate avoidance:

1 c8♗!! b3 2 ♗g4 b2 3 ♗d1! ♔xb1 4 ♗b3#

The underpromotion is necessary to give Black the move 3...♔xb1, and only a bishop fits the bill. The paradox is particularly impressive in this example because it *appears* so easy to mate in four starting with 1 c8♕.

Diagram 2.13 shows the idea in study form.



2.13 Win PDG(F)
G.A.Nadareishvili
1st Prize, Drosha Tourney, 1965

1 ♗a4 ♘g4!!

One of the finest Black moves in this book! It has an incredible look about it that stamps it as a sure-fire candidate for the chapter on Depth, which follows. Let us first dispose of the much saner-looking 1...♘c4. White continues as you would expect: 2 a6 (2 ♗b3 ♔e7 transposes) 2...♘b6 (2...♘e5 3 ♔c7 and the pawn promotes) 3 ♗b3+ ♔e7 4 a7 ♔d6 5 ♔b7 ♔c5 6 e5 winning.

2 ♗d1!!

This is starting to look like a game between a salesman and his prospect. The salesman, playing White, is trying very hard not to win, without making it too obvious, but his opponent appears to be too weak! In fact, the two are top-flight grandmasters, because look what would have happened had White proceeded as normal: 2 a6? ♔g6! 3 a7 ♔h5! 4 a8♕ g6! and White cannot prevent 5...d1♕ 6 ♗xd1 stalemate. The text move interrupts this fiendish plan by attacking the knight, but since Black does not lose a tempo, it is not yet clear what it achieves.

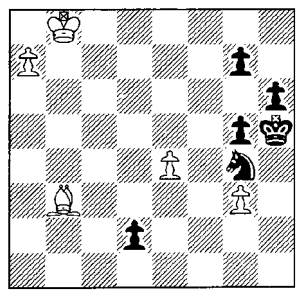
2...♘f2

It makes no difference whether the knight chooses this square or e3. Grandmaster editor John Emms and his silicon beasts found an interesting idea that nearly busts the study here: 2...♔g6 3 ♗xg4 (if 3 a6, then 3...♔h5 4 a7 g6 and Black sets up his stalemate to draw) 3...h5 when the natural 4 ♗e2 only draws: 4...h4 5 gxh4 gxh4 6 a6 h3 7 a7 h2 8 a8♕ h1♕ 9 ♕c6+ ♔g5 10 ♕d5+ ♔f4 11 ♕xd2+ ♔xe4. But White can improve by playing 4 ♗d1! h4 5 gxh4 gxh4 6 a6 h3 7 a7 h2 8 a8♕ h1♕ 9 ♕a6+ ♔g5 10 ♕e2! ♔f4 11 e5, with a win.

3 ♗b3+ ♔g6

Black insists on building his stalemate trap, and indeed this is his only chance.

4 a6 ♘g4 5 a7 ♔h5



6 a8♖!!

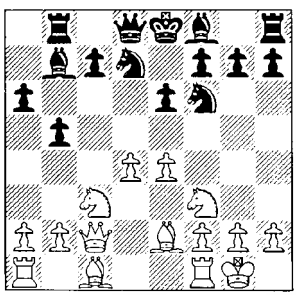
Now White has a sufficient material superiority to win, and at the same time it is possible to foil the stalemate trap:

6...g6 7 ♖a1 d1♕ 8 ♖xd1

and wins.

But why could White not underpromote in the line beginning 2 a6 (see note to White's second move)? Because in that line, the bishop was left on a4, obstructing the rook's path to a1; underpromotion would therefore not have helped White avoid stalemate. The manoeuvre beginning 2 ♗d1 was designed to transfer the bishop to b3 without loss of time. The mechanism whereby this was effected is not easy to discern; it resembles sleight of hand!

Underpromotion occurs quite often in actual play, and not always in the endgame either. Diagram 2.14 occurred after the following moves: **1 d4 d5 2 c4 e6 3 ♘f3 dxc4 4 ♕a4+ ♘d7 5 e4 ♘f6 6 ♘c3 a6 7 ♗xc4 ♖b8 8 ♕c2 b5 9 ♗e2 ♗b7 10 0-0?**, provoking an original combination:



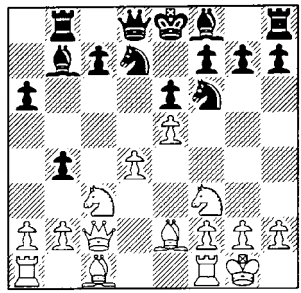
2.14 Black to Play

Xu Jun-V.Ivanchuk

World Team Ch., Lucerne 1993

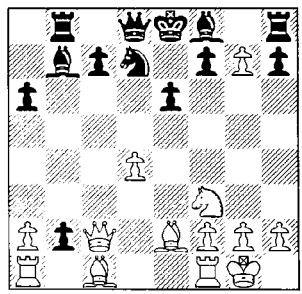
10...b4 11 e5

White is committed to this, else the e4-pawn is lost.



11...bxc3 12 exf6 cxb2! 13 fxg7

Both sides have desperado pawns. White has little choice, as 13 ♗xb2 ♘xf6 leaves him a pawn down with a poor position.



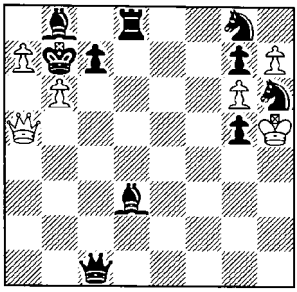
13...bxa1♘!!

This clever resource wins material, for after 14 ♕c3 ♗xg7 Black comes out with an extra rook. If instead 13...bxa1♕?, 14 gxh8♕ and White can view the future with confidence.

14 gxh8♕ ♘xc2

White has not lost a piece; Black has gained one! Ivanchuk went on to win.

Our next example shows the least common reason for underpromotion.



2.15 Draw PDGF
A.Hurtig, 2nd Prize
Schackvärlden 1943

White is not merely busted materially, his king is also trapped.

1 a8♗+!!

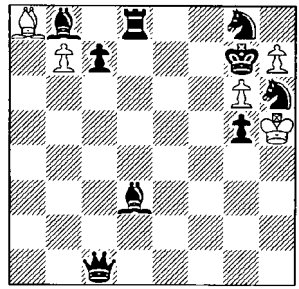
A megaton paradox. Not only is the underpromotion in itself surprising, but we have the extra shock: White refrains from queening with check, giving him an apparently promising counterattack! In fact, after 1 a8♕+? ♔c8, White eventually runs out of steam: 2 b7+ ♔d7 3 ♕d5+ ♔e7 4 ♕xd8+ ♔xd8 5 ♕xb8+ ♔e7 6 ♕f8+ ♔xf8 7 b8♕+ ♔e7 8 ♕f8+ ♔xf8 9 hxg8♕+ ♘xg8 and Black avoids stalemate by releasing the g4-square. Other lines also boil down to the same problem: White is unable to rid himself of all his pieces whilst keeping the stalemate net intact.

On the other hand, what does the promotion to bishop achieve?

1...♔c8 2 b7+

Now we see that White's first two moves have immobilized two men – an achievement when you are playing for stalemate!

2...♔d7 3 ♕d5+ ♔e7 4 ♕e5+ ♔f8 5 ♕xg7+! ♔xg7



6 h8♗+!!

Beautifully echoing the strategy of the first move. Is chess too easy? If 6 h8♕+?, then 6...♔f8! 7 ♕g7+ ♔e8! 8 ♕e5+ ♘e7 9 ♕h8+ ♘hg8 and again White runs out of checks.

6...♔f8

If 6...♔xh8, then 7 g7+ ♔h7(xg7) stalemate.

7 g7+ K moves and it's **Stalemate**

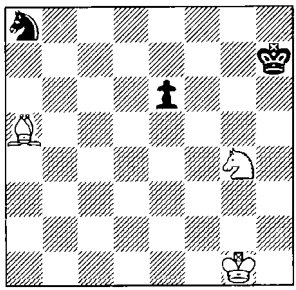
The two promoted bishops are imprisoned by knights' pawns, themselves blocked by black pieces.

Winning with Limited Material

One of the more charming forms of the paradox of material is when success is achieved in spite of an apparent insufficiency of force. Diagram 2.16 is a classic.

Even though White has a material advantage, this is well short of a winning one. However, the bishop 'dominates' the knight (see Chapter Seven

for a closer look at the domination theme) and the battle revolves around White's attempts to win it and Black's to rescue it.



2.16 Win PF
A. & K.Sarychev
3rd Prize, Vecherny Moskva 1930

1 ♘e5!

White resists the temptation to rush his king up the board. This move sets about erecting an invisible barrier to cut the black king off from his knight.

1...♔g7 2 ♗d8!

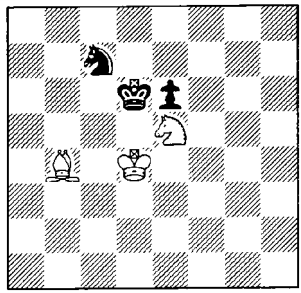
Preventing ...♔f6.

2...♔f8 3 ♔f2 ♔e8 4 ♗a5 ♔e7 5 ♔e3 ♔d6 6 ♔d4

The white king arrives in the nick of time. Black may now retreat by 6...♔e7 after which the knight is lost: 7 ♔c5 ♔f6 8 ♘d7+ followed by 9 ♔c6. Or he may save his knight:

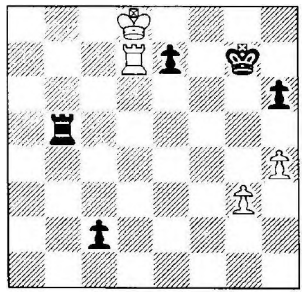
6...♘c7 7 ♗b4#

A glorious and surprising checkmate effected in mid-board by a force with which it is difficult to bring about mate even against a lone king! The study also benefits from the quiet and clear introductory play.



The few versus the many: Positional Draw

Another aspect of the paradox of material is the idea of an outnumbered force successfully resisting a superior one. Our next example demonstrates the concept of *positional draw*, where the final position is a draw despite the presence of a normally winning material advantage. In Diagram 2.17, White's difficulty is the c2-pawn on the brink of promotion.



2.17 Draw PD(G)
G.N.Zakhodiakin, 3rd Prize
Chigorin Memorial 1950

1 ♖c7!

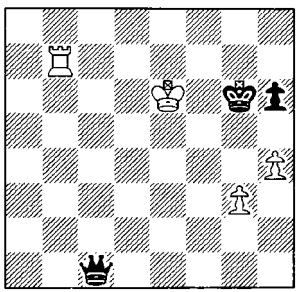
A pleasingly paradoxical refusal to remove the e7-pawn with check: 1 ♖xe7+? ♔f6 2 ♖c7 (2 ♖e1 ♖b1 wins) 2...♖b8+ 3 ♔d7 ♖b7! wins; compare this position with that reached in the solution.

1...♖b8+ 2 ♔xe7 ♖b7!

A well known tactic in rook and pawn endings: the black rook decoys the white one by pinning it.

3 ♖xb7 c1♕ 4 ♔e6+ ♔g6

Black gets nowhere by going to the back rank: 4...♔f8 5 ♖b8+ ♔g7 6 ♖b7+ repeats the position.



5 h5+!

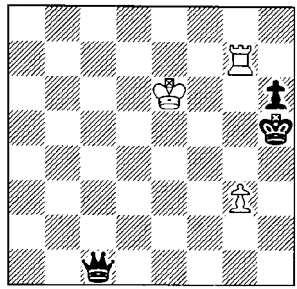
A paradox-enhancing sacrifice.

5...♔xh5

Worse is 5...♔g5, which allows White's next to be a check, thus gaining time.

6 ♖g7!!

Surprisingly, the position is now drawn. The black king is pinned down and White has only to maintain this condition to achieve the draw, as the lone queen cannot break through the mutual protection of the king and rook.



This type of positional draw, in which Black cannot make headway despite a material superiority, is called a *fortress*. The 'page of paradox' showed two more fortresses. Other types of positional draw include perpetual check and repetition of moves or position.

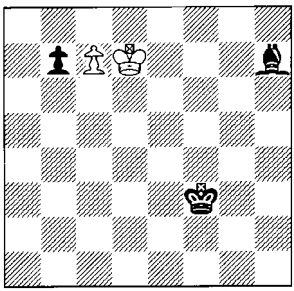
Breaking the Rules

This grouping of paradoxes focuses on the types of preconception which make paradoxes what they are. It looks at moves and ideas which are counter-intuitive, in that they either:

(1) break a rule (or rules) which we assume apply to the position, or

(2) appear to be irrelevant in the light of such rules. This category may be considered as something of a catch-all since, for example, a sacrifice breaks the rule 'don't lose material' while 'irrelevant' moves break the implicit rule that one should be doing something useful.

Let us review some relatively straightforward examples. In Diagram 2.18, White's has only one move to force a draw:



2.18 Draw PDGF

A. & K.Sarychev

Commended Shakhmatny Listok 1928-II

1 ♔c8!!

This move might have its equals, but for sheer paradoxicality it takes some beating. Even after eliminating the natural alternatives (1 c8♕? ♗f5+ 2 ♔c7 ♗xc8; 1 ♔d6? ♗f5; 1 ♔e6? ♔e4! 2 c8♕ ♗f5+) one's mind rebels against this apparently irrational move. And when the reasoning behind the move is revealed, one continues to marvel at its sheer magic: in a position of stark simplicity, the best move turns out to be one which apparently works against White's only counterplay by blocking his pawn's promotion square, whilst deliberately moving the king out of the 'square' of Black's pawn.

The point of the move is that if White merely maintains the status quo, Black will be able to bring his king over to usher his pawn to promotion, meanwhile protecting the latter with the bishop from c8 if necessary. For example: 1 ♔d6 ♗f5 2 ♔e5 ♗c8 3 ♔d5 ♔f4 4 ♔c5 ♔e5 5 ♔b6 ♔d6 and wins. After 1 ♔c8, on the other hand, the pawn is winkled out from b7 and the bishop can no longer protect it from the blockading square c8:

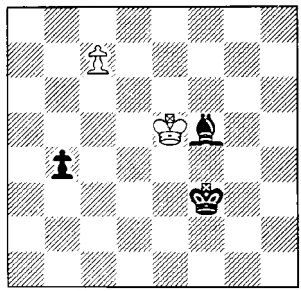
1...b5

If 1...♗e4?, 2 ♔b8 wins the pawn by diverting the bishop to deal with the promotion threat.

2 ♔d7! b4

If 2...♔e4, then 3 ♔d6 ♗f5 4 ♔c5 ♗d7 5 c8♕, while 2...♗f5+ is a transposition of moves.

3 ♔d6 ♗f5 4 ♔e5!



Thus White gains a vital move to re-enter the 'square' of Black's pawn by attacking the bishop that stops White's pawn from queening.

4...♗d7

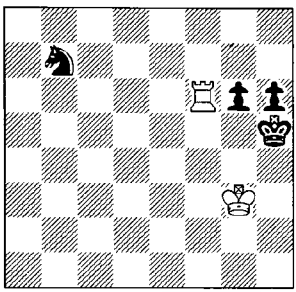
The precise position of the bishop no longer matters.

5 ♔d4

And Black is helpless to prevent the loss of his last pawn, e.g. 5...♗e6 6 c8♕ ♗xc8 7 ♔c4, or 5...b3 6 ♔c3 ♗e6 7 c8♕.

So far, our examples have focused

on a move-set comprised of a single move, and indeed this is by far the most common experience of paradox in chess. The next example, however, demonstrates that a more subtle form of paradox can apply to an entire sequence as well.



2.19 Win PGF

G.Kasparian (end of study)
=2nd Prize, Uralski Rabochi 1946

White plays to win the knight as follows:

1 ♖b6 ♘d8

If Black plays 1...♘a5 or 1...♘c5, then 2 ♖b5(+).

2 ♖d6 ♘f7

After 2...♘b7 3 ♖d7 ♘a5 (or 3...♘c5), 4 ♖d5+ again wins the knight.

3 ♖d7 ♘g5

3...♘e5 4 ♖d5 wins while if 3...♘h8, 4 ♖h7 dominates the knight in the corner.

4 ♖e7!

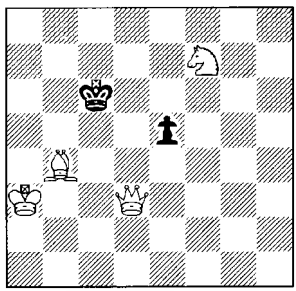
and wins by zugzwang – Black's legal moves all lose the knight.

Part of the paradoxical nature of this little work lies in the fact that the technique used for trapping the knight represents the very antithesis of the one which is usually effective in standard rook versus knight endings. In general, the strong side attempts to separate the knight from the defending king, and the weak side strives to bring them together, making mutual defence possible. Here, Black's jubilation at the knight's arrival in a safe haven is very short-lived because of a special feature of the position whereby the black king is hemmed in.

The Kasparian study also serves to emphasize the point originally made about the dependence on the 'preconceived notion' for the existence of the paradox. If one did not know about the standard approach to the conduct of rook versus knight endings, one would certainly miss some of the point of this composition. And so it often is in art (and in life?): the greater your knowledge, the greater your pleasure.

Although technically there must be a relationship between paradox and difficulty, after some practice you become adept at reading the signs. In the case of No. 2.8 for example, an experienced solver would probably spot the idea of sacrificing the queen as well as providing a flight with check quite quickly, simply because he knows that it is the sort of effect that composers generally try to achieve. Yet the ease of solution would not spoil the impact of the paradox; it is merely that the enjoyment takes a different form – the joy of recognition instead of the delight of discovery, perhaps?

With this point at the back of your mind, see how long it takes you to solve the next example – or at least spot the likely key move. Don't be put off by the fact that it is a 3-mover by the great Sam Loyd!



2.20 Mate in 3 PGD
S.Loyd
Baltimore Dispatch 1859

Did you first consider and then discard any totally idiotic (and therefore 'problem-like') moves? (Example: 1 ♕d4?). Did you bother to consider any totally un-problem-like moves? (Examples: 1 ♕a6+?, 1 ♕c4+?). Did you then plump for the merely semi-idiotic key move?

1 ♕h7!

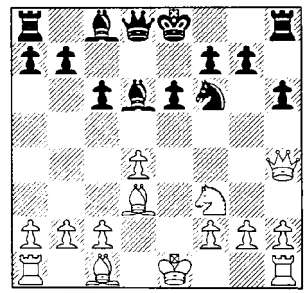
This move again carries no threat, but, whatever Black plays, White continues with **2 ♘d6** and selects his mating move according to where the prey arrives.

Examine this little masterpiece for a while. Get the hang of its mechanism, appreciate the way it operates. Yet even when you have mastered it completely, an element of mystery still remains: why is it that this move, with its obscure character, is the only one that works? What is it about the inner logic of chess that makes such paradox possible?

An impressive example of rule-breaking occurred in the game **Kamsky-Karpov,** Dortmund 1993.

This position arose after the following moves in a fashionable variation of the Caro-Kann Defence:

1 e4 c6 2 d4 d5 3 ♘d2 dxe4 4 ♘xe4 ♘d7 5 ♘g5 ♘gf6 6 ♗d3 e6 7 ♘1f3 ♗d6 8 ♕e2 h6 9 ♘e4 ♘xe4 10 ♕xe4 ♘f6 11 ♕h4



2.21 Black to play

White has succeeded in provoking the weakening of Black's kingside by ...h6. His last move depends on the tactical circumstance that this pawn is pinned, so that Black cannot play the very troublesome 11...g5 because of 12 ♗xg5.

Karpov now played:

11...♔e7!

This move is paradoxical for the following reasons: the position appears entirely normal and we expect Black to proceed with the completion of his development and the freeing of his position with ...c5. The move played, so far from promoting these aims, violates the elementary principle that the king is unsafe in the centre and is liable to interfere with the communications of the other pieces; moreover, the knight on f6 now stands pinned.

Of course Karpov realized that all these considerations were subordinate to the fact that the rook on h8 is now defended by Black's queen, so that 12...g5 is playable and a threat of enormous power; not only will the white queen be driven back into a dangerous position, but in some lines the pawn can follow through to g4 harrying the knight on f3. Kamsky was unable to find a complete solution, and indeed your authors have analysed the position and have failed to find an improvement on his play.

12 ♘e5

Giving up a pawn to a simple combination, in the hope that the two bishops and superior development will offer White prospects of exploiting the position of Black's king.

12...♗xe5 13 dxe5 ♕a5+ 14 c3 ♕xe5+ 15 ♗e3 b6 16 0-0-0 g5 17 ♕a4 c5

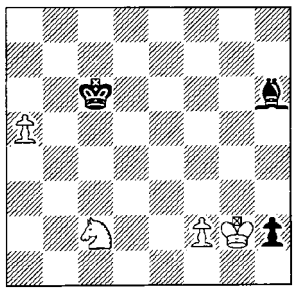
and after some ups and downs Karpov triumphed on move 49.

Zugzwang

For many chess enthusiasts, the prettiest – certainly the most poignant – paradox of all is that of zugzwang. Normally, having the right of making the next move is an advantage: you can make progress, improve your position, generate threats, and defend against your opponent's. Yet, just once in a while, you might blunder into that embarrassing situation where you can only wish it were not your turn to play. Suddenly the right to move has become an onerous duty.

Because the unit of time in chess is the move (or, pedantically, the half-move), this situation, which breaks the rule that it is desirable to have the move, can be termed the *paradox of time*.

We have had a preview of zugzwang with Kasparian's No. 2.19. See if foreknowledge helps you to solve the next example, by the great 'Hypermodern' grandmaster, who was a very keen and successful study composer.



2.22 Win PGD

Richard Reti

Hastings & St Leonards Post 1922

White's plan is to capture Black's

pawn whilst retaining both of his own. He must deal with the threat of 1...♗b5 picking up the a-pawn. Thus White begins with:

1 ♘d4+

Guarding b5. If instead 1 ♘b4+ ♗b5 2 a6 ♗b6, White's a-pawn is doomed as the bishop can dislodge the knight from its protection by playing to f8.

1...♗c5

This keeps the pawn under surveillance whilst also threatening the knight in certain circumstances (not immediately, since if Black were to capture the knight in this position, the white a-pawn would streak to promotion).

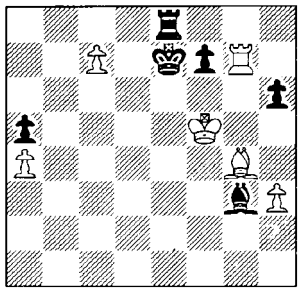
This is the critical position. The big question is: how does White make progress? If 2 ♔xh2, Black replies 2...♔xd4! 3 a6 ♗f4+ 4 ♔h3 ♗b8 and has time to capture the pawn on a6-pawn. An improvement is 2 ♘b3+ ♔b5 3 ♔xh2, but it is still insufficient: 3...♗f4+ 4 ♔h3 ♔b4 5 a6 ♗b8 6 f4 ♔b5 and Black will again be able to capture the a-pawn, leaving the bishop enough time to prevent the f-pawn from promoting.

The strict answer to our question is, paradoxically, White cannot make progress! Fortunately, however, neither can Black, so White can maintain the status quo with the unexpectedly mild retreating move:

2 ♗h1!!

A very irrelevant-looking move! Let us review Black's possibilities: the only king move which does not allow the a-pawn to promote is 2...♔d6 and this is answered by 3 ♘f5+ forking the bishop. All moves by the bishop, except to e3 where it will be captured by the lurking f2-pawn, result in its loss to another knight fork on b3 or e6. There can surely be no chessplayer who would not exult in the chance to play a pure waiting move, a 'backward' one to boot, ♔g2-h1 – and in so doing force his opponent's resignation!

Now look at Diagram 2.23.



2.23 Win PD(G)(F)
A.S.Gurvich, 1st Prize
Alma-Atinskaya Pravda, 1959

This seems to be a perfectly innocent, rather drawish position with the reduced material and opposite-coloured bishops not offering much prospect of excitement.

1 ♗h5!

Threatening both the bishop as well as f7.

1...♗xc7

If the bishop shuns the pawn, things will be even worse for Black, e.g. 1...♗h2 2 ♖xf7+ ♔d6 3 ♖f6+ picking up the rook.

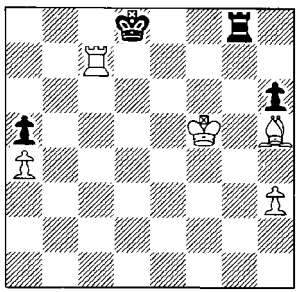
2 ♖xf7+ ♔d8

Black again avoids 2...♔d6? 3 ♖f6+.

3 ♖xc7!

White now seems to have come out on top with a neat little combination, for if 3...♔xc7 then 4 ♗xe8, while if 3...♖f8+, 4 ♖f7, in both cases with a winning extra piece. But Black has one more arrow...

3...♖g8!



Now both White's pieces are threatened, the rook directly and the bishop by 4...♖g5+. Surely both can't be saved?

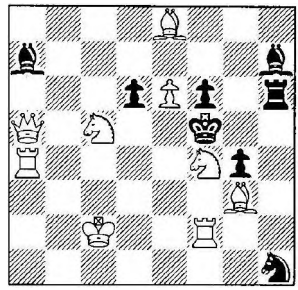
4 ♖c4!! ♖g5+ 5 ♗e6! ♖xh5 6 h4!

And White wins! It is Black's turn to move, he faces no threat, but 6...♔e8 allows 7 ♖c8#, while any rook move results in its immediate capture. Yet if it were White's move, he would be equally unable to escape the tentacles of zugzwang and would be obliged to let Black off with a draw.

Such a position, when whichever side has the move wishes it didn't, is a case of what is called *reciprocal* (or *mutual*) *zugzwang*. Large numbers of compositions are driven by this singularly attractive idea, but it seldom occurs in a game. Indeed, part of its allure, no doubt, derives from its rarity.

The Paradox of Set Play

From the earliest times, chess artists have explored paradoxical effects which rarely arise in play and never with the quality and intensity for which composition affords the opportunity. Consider Diagram 2.24:



2.24 Mate in 2 P

A.Volkmann, 1st Prize
Lippische Landeszeitung 1951

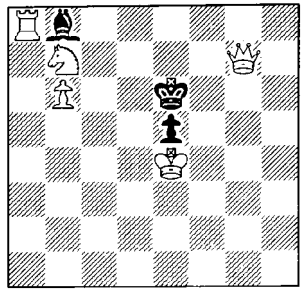
One of the first things the solver looks at when tackling a problem is the situation of the black king. Here there are two flights and, moreover, by moving to these squares the king discovers check from the ♗h7. Further examination shows that these two moves are each set with a specific mating retort: 1...♔e5+ 2 ♘cd3# and 1...♔g5+ 2 ♘e4#. Since the rook on f2 is not required for either of these mates, the solver might well essay the try 1 ♖d2, which is pleasingly paradoxical in itself, giving up as it does the rook + knight battery. Black has against this the resource 1...♖h2! to which there is no answer. This will probably set the solver back

somewhat, and it might be some time before he hits on the parallel idea of giving up the queen + knight battery – and the set mates with it – with the key move **1 ♕d2!** threatening 2 ♕d5#. Now 1...♔e5+ is met by 2 ♘g6# and 1...♔g5+ by 2 ♘fd3#.

We have seen this theme, the cross-check theme, before in No. 1.7. Apart from the fact that the above position is 'only' a 2-mover, there is an important difference: in Loshinsky's problem, the key move was paradoxical because it allowed the black checks; here the checks exist already in the initial position. The paradox in the Volkmann is a horse of a different colour entirely: the key move unexpectedly 'sacrifices' the existing means of dealing with two very powerful Black moves, changing them for quite different ones. In other words, the key appears to lose control of the position and this is surprising because it is something which any reasonable player would automatically struggle to retain; in reality, it substitutes a different control. This paradox of set play occupies a seminal role in the modern chess problem, yet it is hardly ever seen in anything approaching such clarity of expression in the endgame study, let alone in actual play.

Let us have a look at the rather special effect which a problem can produce using the paradox of set play combined with zugzwang.

(see following diagram)



2.25 Mate in 2 P(G)
R.T.Lewis
The Problemist 1985

With Black to play, all the traps are set: 1...B random (e.g. 1...♗a7) 2 ♖e8#. If Black corrects his error of opening the rook's line to e8 by preparing to interpose on e7 with 1...♗d6, we have a self-block instead, allowing the knight to relinquish its protection of d6 and deliver 2 ♘d8#. But it is White's move, and we seek in vain for a waiting move preserving the status quo, noticing that 1 ♖xb8? is stalemate. So what to do?

1 ♖a6!

This releases the apparent reciprocal zugzwang by invoking the paradox of set play: now 1...♗a7/c7 leads to 2 bxa7/c7# whilst 1...♗d6 leads to 2 ♘d8# as before. Such problems, in which the key move unexpectedly changes the set play and passes the zugzwang 'hot potato' to Black, are humorously called *mutates*. This one has the additional quirk that the position after the key is also a mate in two, solution 1 ♖a8!, of course!

Chapter Three

Depth

'Some people take more care to hide their wisdom than their folly.'
Jonathan Swift

We have probably all at various times used the word 'deep' to describe a move or manoeuvre. What we mean by this is, simply, that the point is not obvious. In general, the reason why the point is not obvious is that it becomes clear only after an interval of some moves. Seeing the figure emerge from the marble, sometimes with a sudden shock of delighted revelation, sometimes with a gradually dawning glow of comprehension, can be one of the great thrills of the game.

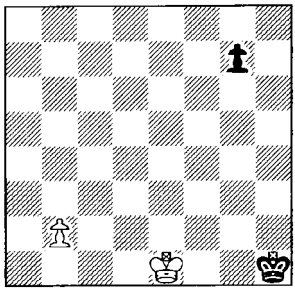
In this chapter we examine various aspects of depth, in which the consequences of a move-set (usually but not always comprising a single move) are only revealed some considerable time later. Firstly, we look at the relationship between depth, length and breadth. Next we examine the ways in which a small difference in the position can make a big difference to the outcome. We also discuss the curious notion of 'negative depth', which could appeal to club players. Finally, we deal with some additional aspects of depth, in particular its affinity to paradox and difficulty.

Depth, Length and Breadth

One indication of the depth of a move is the number of moves (length) before its point becomes clear. Other things being equal, the longer the sequence, the deeper the original move. As we shall see, however, other things are not always equal – depth is not as easy as that!

Our first example is a very basic illustration:

(see following diagram)



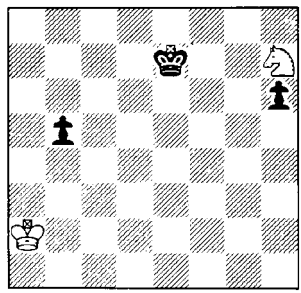
3.1 Win (D)(P)(G)
S.Isenegger
Das 1x1 des Endspiels 1964

If White simply pushes his pawn, Black promotes his straight after, and the game is drawn. Instead, White can win with the cute **1 ♔e2!**. This forces Black to play **1...♔h2**, else White will be able to stop Black's pawn with 2 ♔f3, whilst his own is well beyond the reach of Black's king. Only now does White push his pawn, and we realize that this wins as it promotes on b8 with check! (Note also that White could not postpone ♔e2: after 1 b4? g5 2 ♔e2 g4 Black's pawn prevents 3 ♔f3.)

This is the most elegant way to win, but unfortunately not the only way. A reader of the first edition of this book has pointed out that after 1 ♔f2 ♔h2 2 ♔f3! ♔h3 3 ♔f4 ♔h4 4 b4! g5+ 5 ♔e3! White also wins, since 5...g4 allows White to block the pawn with his king (6 ♔f2) whereas 5...♔h3 loses to 6 b5 g4 7 b6 g3 8 b7 g2 9 ♔f2! ♔h2 10 b8♕+. This variation gives an alternative win with the natural 1 ♔f2 and thus refutes Isenegger's study, which we only leave in the book as an illustration of how difficult it is for a study to be sound!

In spite of its apparent simplicity, this example illustrates an important feature of depth. The length of the sequence following the 'deep' move is not the sole criterion of its depth. If, as here, the sequence is extremely simple (lacking in breadth), then the fact that it is of moderate length (5 moves) counts for relatively little.

Contrast this with the next example, which is an elaboration of a famous study by N.D.Grigoriev, *Shakhmatny Listok* 1934.



3.2 Draw DPG(F)
David Gurgenidze
64 - Shakhmatny Obozrenie 1970

White has his back to the wall because his knight is trapped. However, if he attacks the b-pawn immediately, he can just hang on: 1 ♔a3 (or 1 ♔b3) 1...♔f7 2 ♔b4 ♔g7 3 ♔xb5 ♔xh7 4 ♔c4 and the king arrives in the nick of time to stop the remaining pawn from queening. So which of 1 ♔a3 and 1 ♔b3

is it to be? As in the best compositions, the answer, in the spirit of paradox, is the less natural move:

1 ♔a3!

This is less natural than 1 ♔b3 because, whilst the immediate objective is the b-pawn, it is common sense to choose a route which maintains more options, such as diverting to the kingside. Let us now see how play develops:

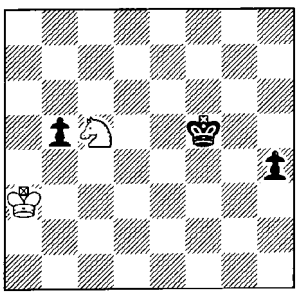
1...♔e6!

Black improves on 1...♔f7 and aims to occupy f5, whereupon the h-pawn can advance without fear of being overhauled by the knight. Thus if White continues with 2 ♔b4? Black wins straightforwardly but instructively as follows: 2...♔f5 3 ♘f8 – otherwise the pawn promotes unhindered – 3...h5 4 ♘d7 h4 5 ♘c5 h3 6 ♘d3 h2 7 ♘f2 ♔f4 8 ♔xb5 ♔f3 9 ♘h1 ♔g2 and the white king looks on helplessly at the demise of his last officer. Thus White must react more energetically:

2 ♘f8+! ♔f5

This is still the best square from which to keep the knight at bay.

3 ♘d7 h5 4 ♘c5 h4



5 ♘b3!!

Now we see why White's king avoided b3 on move one! Instead, 5 ♘d3 still doesn't work: 5...h3 6 ♘f2 h2 7 ♔b4 ♔f4 and we are back in the losing variation above.

5...h3 6 ♘d2 h2

No better is 6...♔f4 7 ♘f1 ♔f3 8 ♔b4 ♔f2 9 ♘h2 ♔g2 10 ♘g4 ♔g3 11 ♘e3! h2 12 ♘f1+ and draws.

7 ♘f1! h1♕ 8 ♘g3+

Forking the new queen.

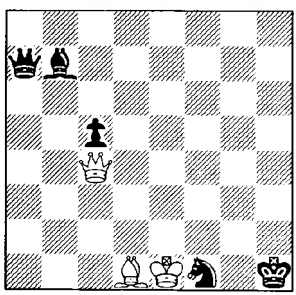
Comparing Gurgenidze's study with Isenegger's, we observe that the sequence following the 'deep' move 1 ♔a3! and ending with the 'point' 5 ♘b3! is a move less than 1 ♔e2! followed by the march of the b-pawn. Nevertheless, the move 1 ♔a3 is patently 'deeper', in the aesthetic sense, than 1 ♔e2. This is no doubt because the point of 5 ♘b3 itself is harder to spot than that of 6 b8♕+. Also, such a knight manoeuvre is much harder to calculate than the straightforward advance of a pawn. The main reason for this is that there are more alternatives to eliminate when working out the main line. In other words, the variation is more complex.

There is an aspect of depth that we call *breadth*, and which is intended to capture the idea of complexity. In a 'broad' position the point can become clear even after just one move, but only when you have seen a number of variations. Certainly most two-movers would qualify as broad in this sense; the Loyd organ-pipes problem (No. 1.6) would be a typical example. To see

the point of the key move, it is necessary to explore all Black's replies, particularly the mutual interferences among the rooks and bishops, before the position is completely unravelled.

Breadth, unlike depth, is not of itself aesthetic. When there is great unity between the variations (as in the Loyd), breadth is impressive – the content can be greatly magnified. Sometimes, though, breadth can just be messy and complex. For this reason breadth is not regarded as an aesthetic element; it can, however, enhance depth. Experiencing real depth can be like finding a needle in a haystack; it occurs at the moment when you see the point of the original move. The size of the haystack depends both on length and breadth.

Let us take a look at a more tactical example.



3.3 Win DPG(F)
Mario Matous, 1st Prize
Shakhmaty/Sahs, 1979-80

White begins with the slightly paradoxical...

1 ♔f2!

Ignoring the inferior, but tempting, 1 ♕xf1+ because there is nothing special after 1...♔h2. Similarly, 1 ♕h4+ ♘h2 leaves White without a clear continuation. Also 1 ♔xf1?? ♗a6 is worse than useless. Now Black must cope with the threat of 2 ♕xf1+ followed by a quick mate, and natural defences like 1...♘h2 or 1...♕a6 lose to 2 ♗f3+!. Thus Black's next is forced.

1...♗g2 2 ♗f3

This move really looks like it overloads the black defenders, but he hangs on with:

2...♕g7

Here the obvious move is 3 ♕xf1+, but again it is not enough to win: 3...♔h2 4 ♕g1+ ♔h3 5 ♗xg2+ ♔h4 6 ♕h2+ ♔g5 and there is no win. White therefore embarks on a deep and pretty manoeuvre, making clever use of the fact that the black queen is tied to the defence of the knight:

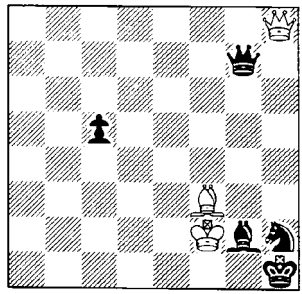
3 ♕h4+!

First forcing Black to block h2...

3 ...♘h2

...so that now...

4 ♕h8!!



Not only threatening the queen, but also preventing ...♕b2+, and of course the white queen is immune because of instant mate.

4...♕g6 5 ♕h7! ♕g5 6 ♕h6! ♕g8

We may now ask what this cute pussyfooting is all about. The answer is that the black queen has been driven back to g8, so that now the continuation which did not work on move 3, when the black queen was on g7, does work:

7 ♕c1+ ♘f1 8 ♕xf1+ ♔h2 9 ♕g1+ ♔h3 10 ♗xg2+ ♔h4 11 ♕h2+ ♔g5 12 ♕g3+

...and wins the queen!

This study again showed real depth, in that White was able to improve on the 'normal' 3 ♕xf1+ by first executing a lengthy sequence that brought about a small change in the position. Only once this change was achieved did White return to 8 ♕xf1+, having converted a drawing line into a winning one. Later, in Chapter Eight, we will see that this kind of depth is the essence of the Logical School of problem composition.

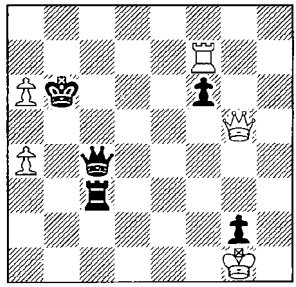
Small Change

As you can see from the examples above, it can be especially attractive when a small, subtle change in the position makes all the difference later. In the Isenegger, the change was the location of the black king on h2 instead of h1; in the Gurgenidze, the change was the availability of the b3-square, brought about by the white king's choice of a3 instead of b3 on move one; the Matous featured the persuasion of the black queen to occupy g8 instead of g7.

Sometimes, this small change is brought about by White's first move (as in the Gurgenidze). Of the two apparently equivalent possibilities, White must discover why only the one works. On other occasions (such as in the Isenegger and the Matous) the change is effected by a forcing sequence.

In the following example, the forcing sequence (or *foreplan*) is a mere one move, but the 'main plan' is staggeringly long. The position is of a type which is well understood by practical players.

With just heavy pieces left to slug it out on an open board, the general rule is: whoever has the move wins.



3.4 Win DFPG

Y.Hoch, 1st Prize

J.Mandil Memorial Tourney 1980

The obvious move is:

1 ♖xf6+ ♔a7 2 ♕g7+ ♕c7

This is forced; if 2...♔a8, 3 ♕b7 mate is not at all deep.

3 ♖f7 ♖c1+

Black has a series of spite checks, but there is a bolt-hole on h7 for the white king.

4 ♔xg2 ♖c2+ 5 ♔f3

Avoiding the embarrassing error 5 ♔h3? ♖h2+ followed by ...♖g2+.

5...♖c3+ 6 ♔e4

Again, White must play carefully, as 6 ♔g4? is met by 6...♖g3+.

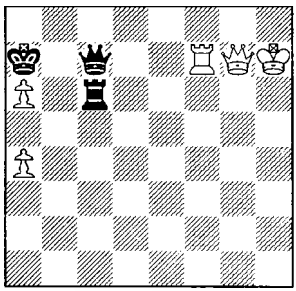
6...♖c4+ 7 ♔d5

Not 7 ♔f5? ♖f4+.

7...♖c5+ 8 ♔e6 ♖c6+ 9 ♔f5 ♖c5+ 10 ♔g6

The fact that White can dither harmlessly here with 10 ♔f6 is of very little consequence aesthetically.

10...♖c6+ 11 ♔h7



The king has arrived and White signs the scoresheet.

11...♔xa6!!

A rude shock – White had only bargained on the stalemate trap of 11...♔a8 12 ♕g8+! ♕c8 (12...♕b8 is also met by ♖f8) 13 ♖f8 winning.

12 ♖xc7 ♖xc7 13 ♕xc7

Stalemate!

Where did we go wrong? Checking backwards through the sequence, looking for an improvement, we will eventually arrive at... move one! Surely one of the longest 'tries' on record!

1 a5+!! ♔xa6

1...♔c6 loses simply to 2 ♖xf6+ and Black can no longer interpose his queen on the next move.

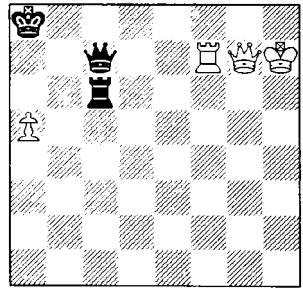
2 ♖xf6+ ♔a7 3 ♕g7+ ♕c7 4 ♖f7

It really looks like we've cracked it now. White's deep first move has removed the stalemate trap we fell into before. Everything proceeds smoothly on the same lines as in the false trail, for a while...

4...♖c1+ 5 ♔xg2 ♖c2+ 6 ♔f3 ♖c3+ 7 ♔e4 ♖c4+ 8 ♔d5 ♖c5+ 9 ♔e6 ♖c6+ 10 ♔f5 ♖c5+ 11 ♔g6 ♖c6+ 12 ♔h7

Now if 12...♔b7!? instead there is the simple 13 ♔g8! (13 ♕b2+ also leads to a win).

12...♔a8!



This trap has a bit more life in it than on its first outing above.

13 ♕g8+!

Of course, White must avoid the stalemate after 13 ♖xc7? ♖xc7 14 ♕xc7.

13...♕c8 14 ♖f8 ♖c7+ 15 ♔h8!

The exclamation mark is for our de-

light at the way the position now 'echoes' that after 12 ♔h7.

15...♔a7!

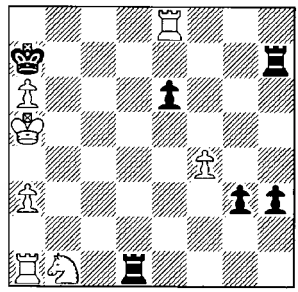
An ingenious repetition of the stalemate resource in the try play line above, but one rank further up the board. It is this factor that makes all the difference:

16 ♕g1+!

This is the resource which White lacked in the original 1 ♖xf6+ line. Black has no answer and must lose his queen and the game.

Hoch's work has several features to admire. We have already pointed out the 'echo' between the try and the actual play; this concept is further discussed in the Geometry chapter. There is also the paradoxical effect of the first move, sacrificing a white pawn rather than the much more obvious capture of a black one. And, as we shall understand more fully after Chapter Five, there is excellent flow in the long march of the white king.

What makes this study of special interest to us is the wonderfully long sequence separating the first move from its subtle point. A trait it shares with the following first prize winning study, which features two remarkably deep (and surprising) pawn sacrifices. Both these moves being far too deep for my version of *Fritz* on a powerful, modern computer in 2007, which was completely thrown by them. It is a very fine example of what we have called a 'depth study'. A small difference between two alternatives becomes crucial, but only much later on:



3.5 Draw DPF(G)

D.Gurgenidze & V.Kalandadze

1st Prize, I.Akobia 60th Jubilee, 1997

The advanced black pawns on g3 and h3 are a winning force unless White can conjure up something. There is only one move to try.

1 ♘c3 ♖h5+

White was threatening ♘b5 mate and so this rook move is clearly best.

2 f5!!

To understand this we must await White's 26th move. It is extremely rare to find moves where the point is so far in the future (in terms of number of moves) from the move being played. Nietzsche wrote in his 1886 book, *Beyond Good and Evil*, 'stronger, more evil and more profound; also more beautiful'. This was written without reference to chess but it is almost the perfect annotation for a depth move like 2 f5!! when compared to any of the alternatives.

2...♖xf5+ 3 ♘b5+ ♖xb5+ 4 ♔xb5 ♖xa1 5 ♖e7+ ♔b8

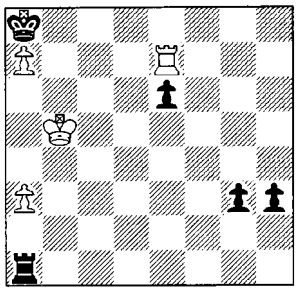
Black is trying to win and thus is

not interested in the draw to be obtained by repeating moves: 5...♔a8 6 ♖e8+ ♔a7 7 ♖e7+.

6 a7+

After 6 ♖e8+ ♔c7 7 a7 ♖xa3 White would lose because the black pawns are too strong.

6...♔a8



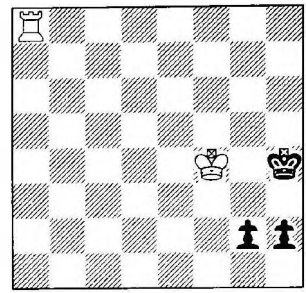
7 ♔a6!!

Another fabulously deep pawn sacrifice. This time the point becomes clear within just 10 moves: 7 ♔b6? ♖b1+ 8 ♔a6 ♖b8 9 axb8♕+ ♔xb8 10 ♔b6 ♔c8 11 ♔c6 ♔d8 12 ♔d6 g2 13 ♖a7 ♔c8 14 ♔c6 ♔b8 and unlike in the main line, White cannot play 15 ♖a1 because his own pawn on a3 gets in the way.

7...♖xa3+ 8 ♔b6 ♖b3+ 9 ♔a6 ♖b8 10 axb8♕+ ♔xb8 11 ♔b6 ♔c8 12 ♔c6 ♔d8 13 ♔d6 g2 14 ♖a7 ♔c8 15 ♔c6 ♔b8 16 ♖a1

This move is only possible thanks to the capture of the a3-pawn, as forced by White's 7th move.

16...h2 17 ♖b1+ ♔c8 18 ♖a1 ♔d8 19 ♔d6 ♔e8 20 ♔xe6 ♔f8 21 ♔f6 ♔g8 22 ♖a8+ ♔h7 23 ♖a7+ ♔h6 24 ♖a8 ♔h5 25 ♔f5 ♔h4 26 ♔f4



Finally the point of White's mysterious second move is revealed. The f4-square was made available to his majesty the white king by sacrificing the white pawn that stood on it initially! Thus Black has nothing better than a draw by repeating moves with 26...♔h5 27 ♔f5 and so on.

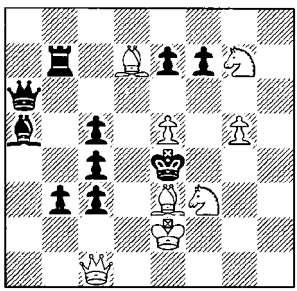
Negative Depth

Up to now our examples have shown White – that is, the protagonist who succeeds – as the perpetrator of the deep moves. But Black can also make deep mistakes; when this happens we call it negative depth. One often sees the question raised – and not always answered – by the annotator of a game: where did he go wrong? The reason for a loss, or for drawing an apparently won position, can sometimes be very hard to pinpoint.

Chess is very much about just this phenomenon. First a weakness arises in your opponent's position, then, perhaps many moves later, you exploit it. For example, you are White and at some stage your opponent plays a use-

ful-looking defensive move, ...h6. Play continues and for some time this move plays no part in your calculations. Suddenly, events develop in such a way that ...h6 turns out to be a crucial weakening of Black's castled position. Utilizing this factor, you obtain a winning advantage.

Let us see how a problemist exploits negative depth for aesthetic effect in Diagram 3.6.



3.6 Mate in 4 D(G)
Nikolai Zharkov, 2nd Prize
Shakhmaty v SSSR, 1991

First we note that Black's single flight, 1...♔d5, is set with the reply 2 ♕d1+ ♔e4 3 ♗f5#. This is not relinquished by the key **1 ♕h1!** which contains the neat threat 2 ♗c6+! decoying the black queen away from the defence of c4: 2...♕xc6 3 ♘d2+ ♔xe5 4 ♘xc4#.

To deal with this threatened combination, the black rook can be deployed to:

a) protect c4 by 1...♖b4;

b) protect c6 – thus avoiding the decoy of the queen – by 1...♖b6 or

c) by 1...♖c7;

d) remove the threatening bishop from the scene altogether by playing 1...♖xd7.

Let us look at these four possibilities in turn.

What weakness does **1...♖b4** create in Black's position? Would you believe a selfblock of the king? **2 ♕h4+ ♔d5 3 ♗xc5!** (an unexpected 'quiet' move threatening **4 ♕d4#**) **3...♔xc5 4 ♕d4#**. But for 1...♖b4, this continuation would have made no sense.

Now that you have seen the idea, can you spot the continuation after **1...♖b6**? It is **2 ♗f5+ ♔d5 3 ♕d1+ ♔c6 4 ♕d7#**, exploiting the prospective (i.e. not immediate) selfblock of the king by the rook on b6.

After **1...♖c7** we have **2 ♘h2+ ♔xe5 3 ♘g4+ ♔d6 4 ♕d1#**. A pleasing long-distance mate, taking advantage this time of the selfblock on c7.

Last, but not least, **1...♖xd7 2 ♘d2+ ♔xe5 3 ♕e4+ ♔d6 4 ♘e8#**.

The theme of this problem is prospective selfblocks. It possesses a marvellous unity because all of the variations are introduced by the same black rook, a splendid feat of construction. But the point at issue is that all four variations showed a 'deep' weakening of the black position, not at all obvious at first sight. It is precisely this hiddenness which gives depth its special allure.

Further Aspects of Depth

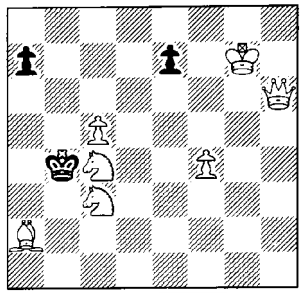
At this stage, it is appropriate to introduce a distinction between our use of

'depth' and 'deep' on the one hand, and a looser usage which is common, on the other. This usage is characterized by such phrases as 'a deep combination'. The word 'deep' here is merely used as a synonym for 'long' and lacks connotations such as 'subtle' and 'profound' which we wish to convey with our more restrictive usage.

This fine distinction reveals a more substantive aesthetic issue. The kind of moves or manoeuvres to which we are referring in the context of depth are essentially finesses; they are clever and delicate. They do not so much trigger combinations as modify their result. The appeal of long combinations generally is not one of depth in our special sense, but one of flow – for which see later.

Returning to our discussion of depth as such, the hallmark of the truly deep move is the obscurity of its point. Other things being equal, the longer the sequence, the more obscure the point. But as we have seen, when other things are not equal, the point of a shorter sequence can be just as obscure, if not more so. It is perhaps debatable whether a two-mover can ever be truly deep, but it seems to us that a three-mover certainly can.

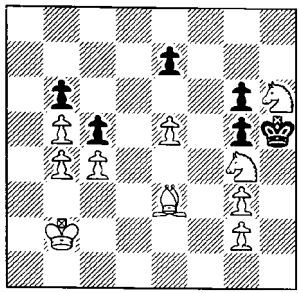
Consider for example Sam Loyd's (No. 2.20) which we discussed under Paradox. Although paradox was indeed its main impact, the point – that 2 ♘d6 could suffice to mate on the following move regardless of Black's first move – hardly leaps to the eye. Compare our next example:



3.7 Mate in 3 DP(G)
Fritz Giegold, 4th Prize
Oberfrankisches Problemturnier, 1933

The key is the delightful **1 ♕h8!**, waiting. In much the same vein as Loyd's problem, White has a single second move which serves against all Black's responses: **2 ♕d8!**. Yet this point seems more obscure – and therefore the key move is deeper – than that of Loyd's problem. One reason for this might be optical – the queen is even further from the black king than in the Loyd. Another possible reason is that, in the line **1...♔xc5 2 ♕d8**, Black finds himself in zugzwang a second time, that is, although there is no threat, anything Black does leads to immediate mate (in problemist's parlance, the problem is a 'waiter' within a 'waiter').

It is also worth observing that, as we have frequently seen, paradox and depth often go hand-in-hand. This is to be expected, since a move with an obscure point carries a fair probability that it will at least be surprising, and vice versa. Consider the next problem:



3.8 Mate in 5 DP
Fritz Giegold & Herbert Engel
Schach-Echo 1973

It is no accident that it, too bears the cachet of Fritz Giegold, a master of depth among problemists. The black king is completely hemmed in, but how does White get at him? In such positions, the obligation to move can be relied upon to contribute to Black's downfall, but even so, White has to deploy plenty of ingenuity, as evidenced by the spectacular key:

1 ♗g1!!

Now let us look at the first of Black's two possible moves: 1...cxb4. The continuation is 2 ♗xb6 b3 3 ♗c5 e6. Note that Black's last two moves could have been played in either order. Now comes the *coup de grâce*: 4 ♘f6+! ♔xh6 5 ♗f8#. As the reader has no doubt noticed, this does not explain the key; as far as 1...cxb4 is concerned, White could have done equally well with 1 ♗f2.

But this variation was merely the *hors d'oeuvre*; after

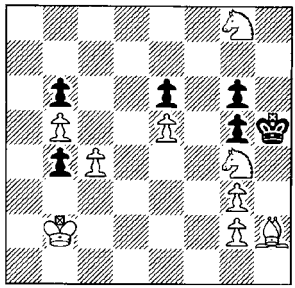
1...e6

we get the main course:

2 ♗h2!

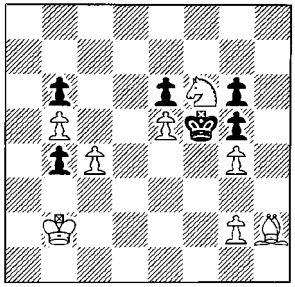
All is now explained, no?

2...cxb4 3 ♘g8!



Threatening 4 N(either)f6#.

3...♔xg4 4 ♘f6+ ♔f5 5 g4#



The depth of the key move in this work speaks for itself, but wherein lies the paradox? We are sure that the reader will agree that it is the apparently pointless deactivation of the bishop.

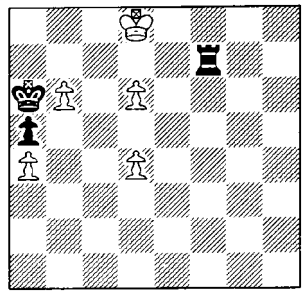
So far we have skirted around an issue which is fundamental to our experience of depth – indeed it is funda-

mental to chess in all its forms: difficulty. There is no doubt that the difficulty of a position raises the suspense, and the revelation of the solution then releases it, leading to a wonderful 'kick', a unique explosion of intellect and emotion.

Depth and difficulty are very closely related, but they are not the same thing: depth does not have to be accompanied by difficulty, nor difficulty by depth, even though they often travel together. The difference between the two is that there is nothing lasting about difficulty; once you have seen the solution, you have had your high, never to be repeated by the same position (as long as you remember it!). But a deep move will always be a delicacy to be prized, like a choice quotation or a pretty tune. Mastering a difficult position is an intellectual achievement, but not necessarily an aesthetic experience.

Another well-known aspect of difficulty is its subjective component. Of course, we have discussed the subjective aspect of beauty as well, but what makes a chess position difficult is notoriously hard to define; not only individual differences, but also circumstances can play a role. At least we can define what makes something paradoxical or deep, even if these effects are not equally enjoyed by all spectators. Shall we just say that difficulty is strongly influenced by depth and leave it at that?

An interesting tale of the alliance between depth and difficulty occurred in the British Solving Championship final of 1993. The following study had to be solved in thirty-five minutes:



3.9 Win D(P)(G)(F)
Emilian Dobrescu, 3rd Prize
L'Italia Scacchistica 1965

1 d7 ♖f4!

1...♔xb6 2 ♔e8 ♖xd7 3 ♔xd7 and White wins. After 1...♖f4 White has the strong attempt 2 ♔c8!? (but not 2 ♔c7? ♖xd4 3 b7 ♖xd7+). The line continues: 2...♖xd4 3 b7 ♖c4+! (not 3...♖xd7 intending 4 b8♕? ♖d8+! forcing stalemate, because White has the decisive reply 4 b8♘+!) 4 ♔b8 ♖b4!! which forces a draw, because 5 d8♕ is met by 5...♖xb7+ followed by 6...♖b8+!. Instead, if 5 d8♘, it is White who is hard-pressed to draw after the straightforward 5...♖xa4. The win can be forced by a little finesse on the second move:

2 d5!

If now 2...♔xb6, 3 ♔e7 ♖e4+ 4 ♔d6 wins, so Black must stick to the plan of eliminating white pawns:

2...♖d4 3 ♔c8

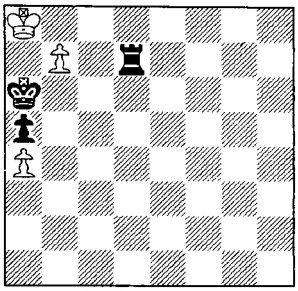
3 ♔c7? ♖xd5 4 b7 ♖xd7+.

3...♖xd5 4 b7 ♖c5+ 5 ♔b8

Now we see the crucial difference

brought about by White's intermezzo on move two: Black's rook does not have the square b5 at its disposal to force the draw by analogy with the 'false trail' line. Instead, he must resort to:

5...♖d5 6 ♔a8! ♖xd7



7 b8♘+!

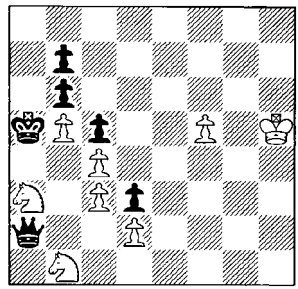
Avoiding the stalemate after 7 b8♕? ♖d8! once more.

7...♔b6 8 ♘xd7+ ♔c6 9 ♘e5+ ♔c5 10 ♘d3+ ♔c4 11 ♘b2+ ♔b3 12 ♔a7/b7 ♔xb2 13 ♔a6/b6

and White wins.

The strange point of the tale is that three grandmasters, Nunn, Mestel and McNab, failed to solve the study in the allotted time. Now, although difficulty is to some extent subjective, we can still say with utter conviction that these gentlemen – particularly the first two, who have solved with success at the highest international level – have certainly coped perfectly well with problems many orders of magnitude more difficult than this one. But what it does show is that depth can sometimes prove very difficult!

Our final example shows, if readers will forgive our use of language, the true heights to which depth can ascend!



3.10 Draw D(G)
N.Elkies
Internet 1994

After **1 f6! ♕b3** it seems not to matter whether White continues **2 f7! ♕d1+ 3 ♔h6!** or 2 ♔h6? ♕d1 3 f7. In fact, you have to see no less than 50 moves deep to grasp the subtle difference! Black threatens to drive the white king to f8 and thereby gain a move to bring his king round towards the action via the path a5-a4-b3-b2-c1-d1-e2, etc. White cannot prevent this plan but...

3...♕f3 4 ♔g7 ♕g4+ 5 ♔h8 ♕f5 6 ♔g7 ♕g5+ 7 ♔h7 ♕f6 8 ♔g8 ♕g6+ 9 ♔f8

The stalemate try 9 ♔h8? fails against 9...♕xf7 when 10 ♘c2 is ready, available and unwanted.

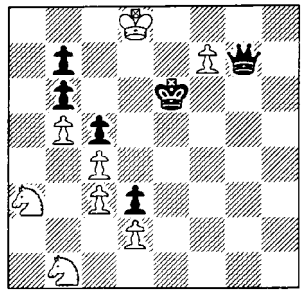
9...♔a4! 10 ♔e7! ♕g7 11 ♔e8 ♕e5+ 12 ♔d7 ♕f6 13 ♔e8 ♕e6+ 14 ♔f8 ♔b3 15 ♔g7 ♕e7 16 ♔g8 ♕g5+ 17 ♔h8 ♕f6+ 18 ♔g8 ♕g6+ 19 ♔f8 ♔b2 20 ♔e7 ♕g7 21 ♔e8 ♕e5+ 22 ♔d8 ♕f6+ 23 ♔e8

♕e6+ 24 ♗f8 ♗c1 25 ♗g7 ♕e7 26 ♔g8 ♕g5+ 27 ♔h8 ♕h6+ 28 ♗g8 ♕g6+ 29 ♗f8 ♗d1 30 ♗e7 ♕g7 31 ♗e8 ♕e5+ 32 ♔d7 ♕f6 33 ♔e8 ♕e6+ 34 ♗f8 ♔e2 35 ♗g7 ♕e7 36 ♗g8 ♕g5+ 37 ♗h8 ♕f6+ 38 ♗g8 ♕g6+ 39 ♗f8 ♗f3 40 ♗e7 ♕g7 41 ♗e8 ♕e5+ 42 ♗d7 ♕f6 43 ♗e8 ♕e6+ 44 ♗f8 ♗f4 45 ♗g7 ♕e7 (45...♕d7 46 ♗f6!) **46 ♗g8 ♕g5+ 47 ♗h7 ♕f6 48 ♗g8 ♕g6+ 49 ♗f8 ♗e5 50 ♗e7! ♕g7**

50...♕e6+ 51 ♗f8 ♗f6 52 ♗g8 leads to the same result.

51 ♗e8 ♗e6 52 ♗d8!

With not a tempo to spare, White claims a draw by the 50 move rule as there has not been a pawn move or a capture since move two (2 ♗h6? and 3 f7 would have allowed 52...♕xf7! breaking the sequence).



The genius of the composer shines through in this study: the smallest of changes – a mere transposition of moves – proves crucial all of 50 moves later. This is a record that will be hard to beat!

Chapter Four

Geometry

'In any particular theory there is only as much real science as there is mathematics.'

Immanuel Kant

Our third element deals with chess as a visual art. The term 'geometry' is used in a very loose sense and refers to the appeal of the physical effects of moves and positions to the chess mind's eye. We are not only concerned with the arrangement of chessmen in pretty shapes and symbols (part of what we shall call 'graphic' geometry), but also with the subtle, yet visible relationships among squares, lines and the pieces which occupy and control them ('optical logic' geometry).

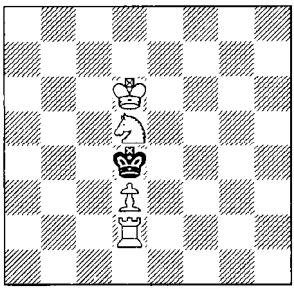
For many people starting out on their journey into chess, it is this geometrical appeal which first seduces them and keeps them going. Enjoying the other elements can only come later, but a partial appreciation of chess geometry is possible quite early. Just as well, really, since otherwise many would simply give up!

A fuller understanding of chess geometry is only possible after exposure to a wide range of ideas and motifs. We want to give you a fair sample of geometrical effects in this chapter. For that reason, and not because we regard geometry as more important than any of our other elements, this chapter is a little longer than the introductory chapters on Paradox and Depth.

We will be putting these assorted effects into three broad categories: *graphic, optical logic* and *extended geometry*. This is mainly to ease communication and it is not crucial to understand precisely how these are defined. The following overview should be sufficient to illustrate our purpose.

Graphic geometry covers the least abstract patterns. A straight line of

pieces, a corner-to-corner move, the switchback of a piece, the moving of a whole configuration of pieces one rank up the board would all be graphic. They are the sort of thing that might conceivably be noticed by a talented chimpanzee! To illustrate what we mean, we have 'composed' the following position:



4.1 Black to Play (G)
JL & DF

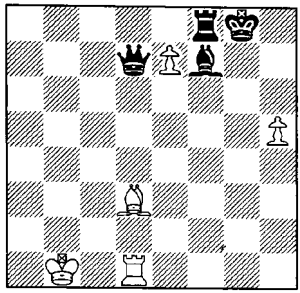
Although our chimpanzee would have to be unbelievably talented to know it is stalemate, it might notice that the pieces are in a straight line! In fact, graphic effects are often coincidental. If you move the knight to a4 and add a white pawn on f2, it is still stalemate, but the graphic effect is lost. In other words, the graphic effect does not arise out of the logic of the position.

'Optical logic', on the other hand, has everything to do with the logic of the position – it would be well beyond even the most brilliant monkey. It is more abstract than graphic geometry and deals with relationships between pieces and the squares they control. Noticing, for example, that a knight on d1 is dominated by an enemy bishop on d4 since the bishop controls all the squares the knight can go to (b2, c3, e3 and f2), is the sort of instant perception that a stronger player would have. Move the knight to e1 and our optical logic is lost. The visual input is similar in both cases, but in the first version the developed chess mind picks out the pattern. We will be showing many examples of optical logic, including incarcerations, forks and Novotnys. It is probably the most common form of geometry in chess.

With a broad enough definition of geometry, everything could be considered 'geometrical'. We won't go quite that far, but at the end of this chapter we will be extending the meaning of geometry to cover a range of even more abstract ideas. For the moment, it is enough to think of it as a form of conceptual geometry designed to take account of various special effects and patterns. A pawn underpromoting in all three possible ways, as in the following study by Herbstman, would be the sort of conceptual pattern we are talking about:

(see following diagram)

After **1 ♗h7+! ♔xh7 2 exf8♘+,** White wins, but on **1...♔g7** what happens? The obvious 2 exf8♕+? fails to 2...♔xh7! 3 ♖xd7 stalemate. However, **2 exf8♗+!!** wins. Similarly, **1...♔h8** is met by **2 exf8♖+!!.**



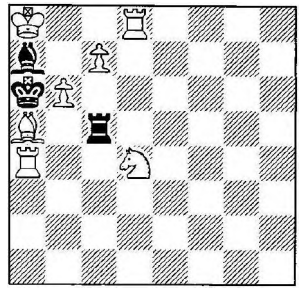
4.2 Win G(P)
A.O.Herbstman, 2nd Prize
Tyovaen Shakki 1934

A single underpromotion is unusual, but in this position we get all three! They form a pattern, since after the first two underpromotions you are almost expecting the third.

Graphic Effects

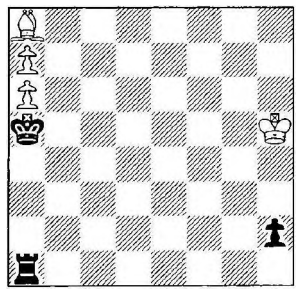
Exploring the graphic effects first, we may note that they consist of positions as well as move-sets. An extreme case of position-graphic is the so-called letter problem, an entertaining example of which can be seen in Diagram 4.3:

In the diagram, the pieces form the letter 'K', but after the key **1 ♖b8** (waiting), it is transformed into an 'R'. Furthermore, after **1...♖xa5** we have a 'P' – albeit with a full-stop on d4 – and after the reply **2 c8♕#** we have an 'F'! But the composer's ingenuity does not stop there: in the variation **1...♖c4 2 ♗b4#** we have the letter 'D' underlined! In the lines **1...♗xb8 2 cxb8♘#** and **1...♗xb6 2 ♖xb6#** there is no graphic effect, but you can't have everything.



4.3 Mate in 2 G
G.Hume (after J.Bunting) 1924
Western Morning News & Mercury

One of the simplest graphic effects is the long move, yet it is remarkable how much it can delight the eye. A special case is the move of the bishop from corner to corner, which has attracted the attention of many composers. No. 4.4 is short and sweet with a rather special twist:



4.4 Win GPD(F)
J.Fritz, 1st Prize
Svobodne Slovo 1961

1 ♗h1! ♖xh1 2 a8♕ ♖d1!

Black fights back well, preventing the queen checks on d5 and d8 and threatening to queen with check. If 3 a7?, then 3...h1♕+ 4 ♕xh1 ♖xh1+ 5 ♔g6 ♖h8.

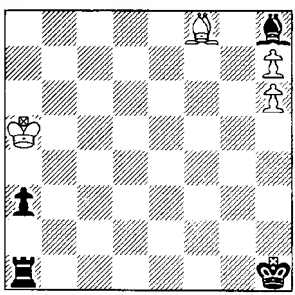
3 ♕h1!!

The queen follows in the footsteps of the bishop.

3...♖xh1 4 a7

In a simple and almost symmetrical position, Black's extra rook proves, paradoxically, to be a decisive disadvantage! White wins after 4...♖g1 5 a8♕+ ♔b5 6 ♕b8+ followed by the capture of the pawn, leaving a technically won queen versus rook ending.

An eye-catching little work, but nevertheless rather undeserving of its First Prize. Unbeknownst to the tourney judge, the study was anticipated by P.Heuäcker a quarter of a century earlier:



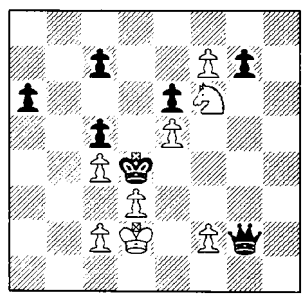
4.5 Win GPD(F)
P.Heuäcker
Deutsche Schachblätter 1937

White wins with 1 ♗g7 a2 2 ♗xh8 ♖e1 3 ♗a1!, etc. We slightly prefer the neater 'version' by Fritz.

Switchback

A comparatively rare phenomenon in actual play is the *switchback*. 'Switchback' is a composer's term for the return of a piece to a square which it occupied earlier in a sequence. It is classified under graphic effects because it is generally an accident arising in the play, although one could argue that this is not always so. It also possesses a slightly paradoxical character, pointed up by the question: if the original move of the piece improved the player's position, surely its return had the opposite effect?

Take a look at Diagram 4.6:



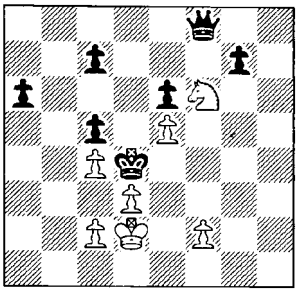
4.6 Win GP(D)
Leonid Kubbel, 1st Prize
Magyar Sakkvilag, 1934

White appears to have a painful choice between allowing a perpetual check or refraining from making a new queen:

1 ♘e4 ♕f3 2 f8♕!

This can truly be called a queen sacrifice! Its purpose is to decoy Black's queen, but from what?

2...♕xf8 3 ♘f6!!



This is the switchback move. The knight has operated like a gate, first letting the queen through, then shutting it off. Now White has the pleasingly 'quiet' threat of 4 f4 followed by 5 c3#. Black cannot escape by 3...♔xe5 because 4 ♘d7+ forks the queen; the lady herself is strangely helpless and even the resolute 3...♕xf6 4 exf6 gxf6 5 f4 doesn't help. A last attempt, apart from the text, is 3...♕h8 which is neatly met by 4 ♘g4! – now that Black no longer has 4...♕f4+ – threatening 5 c3# while also stopping 5...♕h6+.

3...♕b8

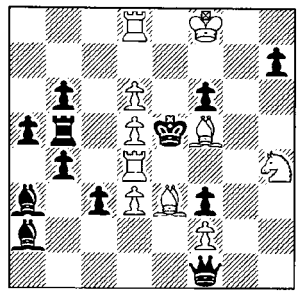
Hoping for 4...♕b4+.

4 c3+ ♔xe5 5 ♘d7+

Winning the queen and the game.

As you would expect, problem composers have performed many wonders with the switchback. Take but one example (4.7):

(see following diagram)



4.7 Mate in 4 G(P)
V.Rudenko, 1st Prize
Soumen Shakki, 1983

The key of this exceedingly clever problem is **1 ♖d7**. This threatens 2 ♖e7+ ♔xd6 3 ♖d7+ (Switchback No. 1) 3...♔e5 4 ♖e4# (a slight flaw is that after 3...♔c5, four moves of the d4-rook give mate; this is uneconomical). Black can defend with **1...b3** which arranges a little surprise after 2 ♖e7+? ♔xd6 3 ♖d7+ ♔e5+!. The downside of this defence is that it interferes with the bishop on a2: **2 ♖e4+ ♔xd5 3 ♖d4+** (Switchback No. 2) **3...♔e5 4 ♖e7#** – for now the a2-bishop can no longer interpose on e6. Black can clearly interfere with the threat by **1...♗xd5**, but this self-blocks, as one would expect: **2 ♗f4+! ♔xd4 3 ♗e3+** (Switchback No. 3) **3...♔e5 4 d4#**. Finally, what mistake does **1...♕xd3** make? **2 ♘xf3+! ♔xf5 3 ♘h4+** (Switchback No. 4) **3...♔e5 4 f4#**.

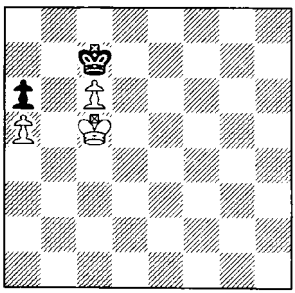
Of course, switchbacks are not the only idea of this problem by an eminent composer. They are integrally interwoven with the clearance of lines

and squares by capture (what problemists call *annihilation*): three are executed by the black king and one by the white knight.

An interesting example of switchbacks occurring in an over-the-board game is Karpov-Kamsky; see the games selection at the end of Chapter Six.

Rundlauf

Before we leave the topic of switchback, we should take a look at a special case called the *Rundlauf* in German. The most suitable English equivalent is probably 'round-trip' and it describes the return of a piece to its initial square in the diagram position by a circuitous route. The piece usually describes a geometrical figure, such as a rectangle, in the course of its travels. This effect rarely occurs in games or even studies, with the notable exception of some endgame situations, particularly *triangulation*. The play in Diagram 4.8, a theoretical position, illustrates this.



4.8 Win G(P)

With Black to play, the white king must be allowed into b6, winning the a6-pawn and the game. With White to play, the diagram position must be repeated with the obligation to move passed to Black:

1 ♔d5 ♔c8

Black prepares to answer 2 ♔d6 with 2...♔d8, else the c6-pawn will be ushered through to queen.

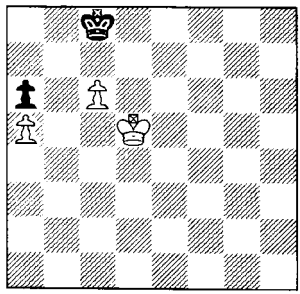
2 ♔d4 (c4) ♔d8 (b8)

White manoeuvres within reach of c5 and d5, obliging Black to remain in touch with the 'corresponding squares' c7 and c8. The reason White wins this position is that he has two adjacent squares, c4 and d4, from which to eye c5 and d5 while he waits, whereas Black's corresponding two squares, b8 and d8, are not adjacent.

3 ♔c4 (d4)! ♔c8

If Black could play to b8 or d8 he would not lose.

4 ♔d5!



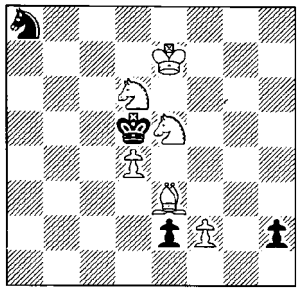
4...♔c7

If 4...♔d8(b8) 5 ♔d6 forces the pawn through, although White must remember either to underpromote after

5...♔c8 6 c7 ♔b7 7 ♔d7 ♔a7 or mate in three by 8 ♔c6!.

5 ♔c5

White's Rundlauf is complete and he wins.



4.9 Mate in 12 GF
A.Shuriakov & V.Syzonenko
Chervony Girnik, 1985

This is a marvellous example of what can be achieved with slender force. If you were faced with this position as White in a game, would you be thinking about swindling a draw or forcing mate in 12?

1 ♘e8!

Threatening 2 ♘f6#.

1...♔e4 2 ♘f6+ ♔f5 3 ♘h5 ♔e4

The only other defence to the threat of 4 ♘g3# is 3...h1♘, which fails to 4 f3! followed by 5 ♘g7#.

4 ♘g3+ ♔d5 5 ♘xe2 ♔e4

The threat was 6 ♘c3#.

6 ♘c3+ ♔f5 7 ♘b5 ♔e4

Black's moves are forced; again this is the only defence against the threatened 8 ♘d6#.

8 ♘d6+

The knight completes the Rundlauf, but to what end?

8...♔d5

The diagram position has been repeated, with the exception that there is no longer a black pawn on e2.

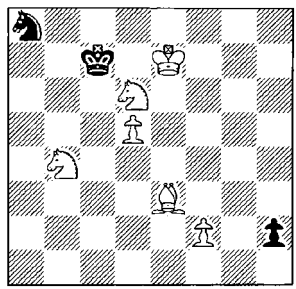
9 ♘d3!

The second knight springs into action with the threat of 10 ♘b4#. This did not work on the first move because of 1...e1♕!.

9...♔c6 10 d5+! ♔c7

If 10...♔xd5, 11 ♘b4+ ♔e5 12 f4#!

11 ♘b4!



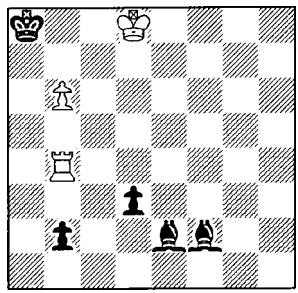
Finally, a threat against which Black has no defence.

11...♔b8 12 ♘a6#

Echo

We now come to examples of graphic effects which involve entire configurations of pieces. In an *echo*, a configuration occurs in a different location on the board in two or more lines of play. A classic example is Diagram 4.10:

(see following diagram)



4.10 Draw G(F)(P)
M.S.Liburkin, 1st Prize
'64', 1932

White's difficulty in this position is that the bishops appear to be able to defend against his threats whilst at the same time controlling the victorious advance of the d-pawn. For example, 1 ♖xb2? ♔b7!. A better attempt is 1 ♔c7, but this can be dealt with by Black as follows: 1...♗g3+ 2 ♔c8 ♗d1! 3 b7+ (3 ♖xb2 ♗g4+ 4 ♔d8 ♗f4 beats off the attack and prepares the inexorable advance of the pawn) 3...♔a7 4 b8♕+ ♗xb8 5 ♖xb8 ♗b3! 6 ♖xb3 d2 7 ♔c7 ♔a6 8 ♔c6 ♔a5 9 ♔c5 and now both 9...♔a4 and 9...d1♕ win.

1 ♔c8!

White's threats are now very serious, but Black can deal with them in two ways:

A: 1...♗g4+ 2 ♖xg4 ♗xb6

Black appears to have neutralized the threats and maintained every prospect of winning, since the rook cannot cope with both pawns: 3 ♖b4 (3 ♖g1 is not on because the bishop controls this square) 3...d2 4 ♖xb6 ♔a7!.

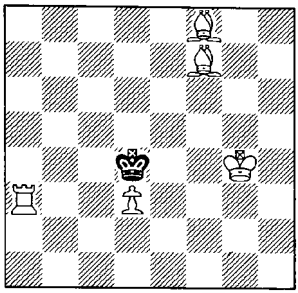
3 ♖a4+ ♗a7 4 ♖b4! d2 5 ♖xb2 d1♕ 6 ♖b8+! ♗xb8 Stalemate

Bizarrely this defensive self stalemating idea is so strong that White can even waste a tempo to draw with 3 ♖b4 d2 4 ♖a4+! ♗a7 5 ♖b4! d1♘ 6 ♖b5 ♗d4 7 ♖a5+ ♗a7 8 ♖b5. This line, discovered by editor John Emms working on this second edition, greatly weakens ('busts' in the popular parlance) the integrity of this famous study. The original diagram position is still a draw (and White has to play well to achieve it) and there are still two elegant lines with an echo theme, so the position retains some beauty and value but it is no longer sound by the strict criteria applied to studies. In the position after 2...♗xb6 White has two drawing moves, the straightforward 3 ♖a4+ and the alternative 3 ♖b4. By convention, such an alternative is not considered acceptable in studies.

B: 1...♗xb6 2 ♖xb6 d2 3 ♖xb2 ♗a6+ 4 ♔c7 d1♕ 5 ♖b8+ ♔a7 6 ♖b7+! ♗xb7 Stalemate

The configuration of black king, black bishop, white king has been repeated, but compared with Variation A, the second occurrence has the configuration shifted one rank down. Because the echoed configuration is located on squares of the opposite colour, it is known by composers under the picturesque classification of *chameleon echo*.

Echoes are a favourite theme among problemists.



4.11 Mate in 4 GP(D)
Y.Vladimirov
Sovietsky Sport 1985

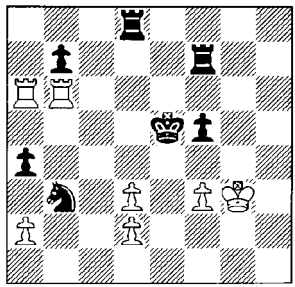
This position is a clear example.

The move 1...♔e3 is clearly difficult for White to cope with in the diagram position, yet the key **1 ♖a2!!**, conceding two more flights, still comes as a delightful surprise. There is no threat; the white army merely waits for the enemy king to march to his execution. **1...♔c3 2 ♗f4! ♘d4** (2...♔xd3 receives the same reply) **3 ♗b4 ♔xd3 4 ♖d2#**. If **1...♔xd3**, then **2 ♗g7! ♔e4** (again, 2...♔e3 is met in the same way as the text) **3 ♗c4 ♔e3 4 ♖e2#**.

Comparing the two mates, the arrangement of the pieces in relation to the black king is virtually identical, except for the reversal of the colours. Again, we have an example of a chameleon echo. In spite of the fact that Black has but a lone king, the play is not trivial, and the remaining two variations, while not integral to the echo theme, maintain this standard: **1...♔e3** transposes into the **1...♔c3** variation as follows: **2 ♗b4! ♔d4/♔xd3 3 ♔f4 ♔xd3/♔d4 4 ♖d2#**. After **1...♔e5** we see a different thought entirely, and one which makes excellent further use of the white pawn: **2 ♖a4! ♔f6 3 ♖f4+ ♔e5 4 d4#**.

Systematic Manoeuvre

A very similar effect to that of echoes is the *systematic manoeuvre*, in which a piece configuration is repeated at different locations of the board, but in a single line of play. As a solver, it is a particularly enjoyable experience to discover such a pattern moving across the board, especially if these moves represent best play. Look at Diagram 4.12:



4.12 Draw GFP
V.A.Korolkov and L.Mitrofanov,
1st Prize, 1st FIDE Tourney 1958

White is a piece down and, because the ♖a6 is attacked, it appears that he must lose time moving it and thus enable Black to rescue his knight.

1 ♖b5+!

This puts Black on the spot, since 1...♔d4 is answered by 2 ♖xa4+, and

1...♖d5 is even worse because of 2 f4+.

1...♘c5! 2 ♖xc5+ ♔d4

Black now attacks both rooks: White's next is forced.

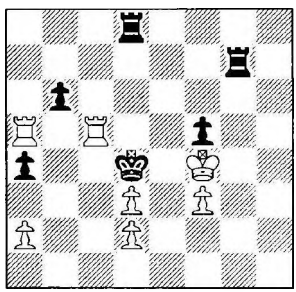
3 ♖aa5 ♖g7+!

Black deftly avoids the temptation to fork the rooks immediately by 3...b6, for then White will escape with 4 ♖xf5, attacking Black's rook, and if 4...♖g7+, 5 ♖g5 when Black's last attempt, 5...♖dg8, is brushed aside by 6 ♖xa4+.

4 ♔f4!

White chooses his square carefully; the reason will reveal itself at the end of the solution.

4...b6



5 ♖c4+ ♔xd3

Again, the two white rooks are attacked.

6 ♖aa4 b5

For the second time, the two rooks are forked by the b-pawn.

7 ♖c3+ ♔xd2 8 ♖aa3 b4

The third and last fork.

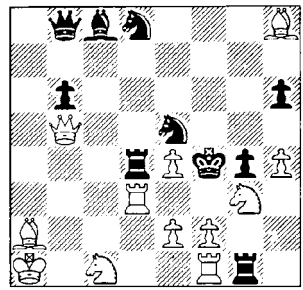
9 ♖c5! bxa3 10 ♖d5+! ♖xd5 Stalemate

A delightful study in which the composers, not content with 'just' a clever systematic manoeuvre (geometry), have added depth (4 ♔f4!), flow, and a paradoxical finish.

Loshinsky Magnet

Our last example in this brief survey of graphic effects is one of the great combinations of chess and creative imagination.

The key of 4.13 is the rather good:



4.13 Mate in 3 G(F)
L.Loshinsky, 1st Place
1st USSR Championship 1947

1 ♕b1!

With the threat 2 ♘h5+ ♔xe4 3 ♖e3#.

Looking at the mating position, we can see that Black can defeat the threat by vacating d4, and indeed it turns out that the moves of the ♖d4 initiate the main variations of the problem: **1...♖d5 2 ♖d4!**. The essence of White's procedure is to create an unanswerable double-threat; in this case **3 ♘h5#** and **3 exd5#**, the latter having been made possible by Black's first move.

Now try **1...♖d6.** White's continuation is **2 ♖d5!** with the double threat of

3 ♘h5# and **3 ♗xe5#**; this time the additional threat is made possible because of the interference by the ♖d6 with the black queen's control of e5.

The third defence, **1...♖d7**, interferes this time with the ♗c8, so that after – yes, you guessed it – **2 ♖d6!**, the threats are **3 ♘h5#** and **3 ♖f6#.**

By most standards, these three lines would be sufficient to win a prize. The idea, which has come to be known as the 'Loshinsky magnet' shows the white rook following its black counterpart at a distance of one square, taking advantage of a variety of tactical features of the position: line-opening of b1-e4, setting up a battery with the d4-rook and e4-pawn, and preparing mates which utilize the interference of the black rook with the ♕b8 and the ♗c8.

Yet Loshinsky has more to show: **1...♖c4**. What error does this move commit? It might take a while to realize that, unlike the first three variations, this move loses control of d3. This means that a move of the d3-rook threatening 3 ♘h5# no longer has to create a second threat, because 2...♘d3, cutting off the queen's protection of e4, can now be answered by 3 ♘xd3#. The only provisos are that the white rook retains control of e3 and g3, so as to answer 2...♖xg3 with 3 fxg3#, and that the black rook is not allowed to throw a spanner in the works with 2...♖xc1 (or 2...♖c2). By this reasoning, therefore, we arrive at (**1...♖c4**) **2 ♖c3!**.

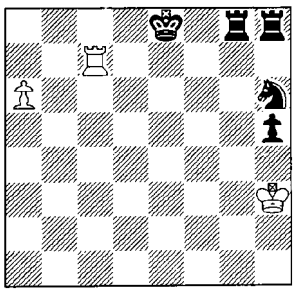
Similarly, **1...♖b4** and **1...♖a4** are met by **2 ♖b3** and **2 ♖a3** respectively.

The first three variations are graphic effects: the white rook's pursuit of the black rook is not, in itself, necessary to force checkmate (in other words, it is purely coincidental that the white rook chases its counterpart). In the second group of variations, however, the juxtaposition of the rooks is necessary to White's purpose, because the black rook must be prevented from crossing his plans. Such a set of variations, in which a white piece is obliged by the logic of the position to maintain a geometrical correspondence with a black one, is termed a *duel* by composers. Such duels have both graphic and optical logic geometry.

Finally, we should account for the last two Black defences: **1...R/♘xd3 2 ♕xd3!** and **1...♖xe4 2 ♖f3+!**.

Optical Logic

Optical logic happens all the time in chess and the next study should give you a clearer idea of exactly what we mean by it.



4.14 Win GPD
B.Gusev & O.Pervakov
The Problemist 1991

Black is material ahead, but requires great ingenuity to avoid losing immediately to the advancing pawn.

1 a7 ♖g3+!

Not 1...♔d8? 2 ♖b7. Now White must capture, otherwise the black rook would stop the Great White Hope by 2...♖a3. But what is the purpose of the sacrifice?

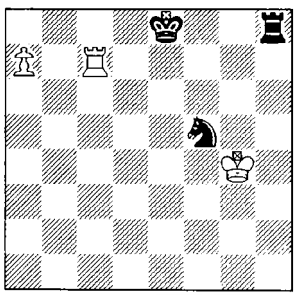
2 ♔xg3 h4+!

Accurate play. If 2...♘f5+, 3 ♔h3 0-0 4 ♖b7 forces the pawn through.

3 ♔xh4

If White refuses the second offer, Black will be able to escape loss by giving up his rook for the pawn: 3 ♔h3 0-0 4 ♖b7 ♖f3+ followed by 5...♖a3. Alternatively, playing to the f-file loses a tempo, e.g. 3 ♔f4 0-0+ 4 ♔e4 h3 5 ♖b7 h2 and it is Black who wins. But after the text move Black cannot continue 3...0-0? 4 ♖b7 ♖f4+ 5 ♔g5! and White will win first the knight and then the rook.

3...♘f5++! 4 ♔g4!

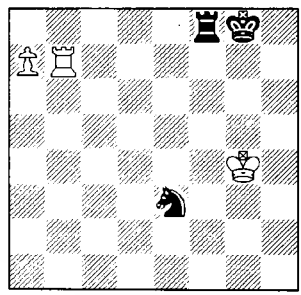


A deep move. White avoids 4 ♔g5 because after 4...0-0 5 ♖b7 ♘d4 (threatening to draw by 6...♘c6) 6 ♖b8, Black has a tempo-gaining check: 6...♘e6+ 7 ♔h6 ♘c7 8 ♔g6 ♘a8 and draws. Now Black faces multiple threats. If he tries another check by 4...♘h6+ (4...♘e3+? is worse because of 5 ♔f3 and there is no defence to all the threats), 5 ♔g5 ♘f7+ 6 ♔g6! ♖h6+ (6...♘e5+ 7 ♔g7) 7 ♔g7 ♖a6 8 ♖xf7 wins.

4...0-0!

This is the point of Black's play and another illustration of graphic geometry. Castling is an odd move, being the only one involving two pieces of the same colour; this gives it a special visual appeal, particularly in an endgame setting, which adds a pinch of paradox.

5 ♖b7 ♘e3+



6 ♔h5!

Another deep move. White avoids 6 ♔g5 (or 6 ♔g3) because after 6...♘d5! we reach a position of reciprocal zugzwang with White to play. This is analysed in detail after White's next move.

6...♘d5 7 ♔g5!

Now it is Black to move and White wins: either 7...♔h8, or rook anywhere along the rank, allows 8 ♖b8, leaving

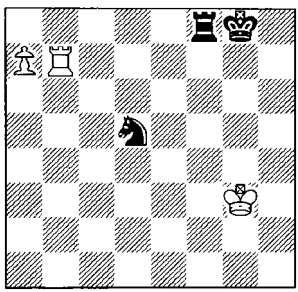
Black no time for 8...♘c7 because his rook would be unprotected, whilst if the knight moves, 8 ♖b8 and there is no stopping the pawn. Only one move is possible, but it allows White to force a second and final reciprocal zugzwang:

7...♘f4 8 ♔g4 (h4)!

Again avoiding 8 ♖b8 ♘e6+ and 9...♘c7.

8...♘d5 9 ♔g3!

At last Black has run out of constructive or waiting moves, so White wins.



Now consider what would happen if it were White to move in the reciprocal zugzwang position (after White's seventh move).

If 8 ♖b8, Black draws by 8...♘c7. Any other rook move along the file also allows 8...♘c7.

8 ♖d7 allows 8...♘b6 (but not 8...♖a8 9 ♔h6!).

If 8 ♔g6/g4, then 8...♖f6/f4+ followed by 9...♖a6/a4 draws; Black is content to give up the rook if necessary and to draw with knight against rook.

Finally, 8 ♔h5 ♖f5+ forces the king to the sixth or the fourth rank whereupon 9...♖f6/f4+ follows.

With White to play in the reciprocal zugzwang position, two geometrical relationships can be seen. Firstly, there is a relationship between the b7-rook and the d5-knight, in which the rook must guard c7 and b6. This relationship is visually represented by the diagonal axis drawn between the two pieces. The second relationship is more subtle but just as clear to the chessplayer's eye: the white king dare not move to the sixth or fourth ranks because the d5-knight will support the black rook's checks on f6 or f4; again there is an axis between the knight and the king, and this time it is a horizontal one.

Although this study is especially notable for its paradoxical and deep reciprocal zugzwangs, it also serves to illustrate the difference between two of our categories. The castling move is a purely visual entertainment; its attraction lies in the physical nature of the move, and not to any significant degree in the logic of the situation on the board. It is therefore 'graphic'. On the other hand, the juxtaposition of the d5-knight and the b7-rook, and also that of the d5-knight and the g5-king together with the lurking f8-rook, derive their interest almost entirely from the situation on the board: it just so happens, for example, that the squares c7 and b6 about the d5-b7 axis are critical in the play. Such geometric phenomena are so embedded in the experienced player's subconscious that they require some intellectual effort to separate

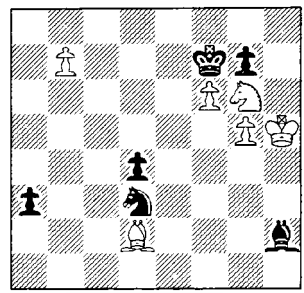
from the underlying rationale of the positions in which they occur. We are calling such phenomena 'optical logic'.

There are other cases of optical logic in this rich and economical study. White's last move – and indeed the final position – demonstrates a subtle, yet thrilling tension, which arises because of the enormous precision demanded of the players owing to geometrical forces. White must prevent the rook from checking on the rank and then switching to the a-file, whilst also avoiding repetition of position. And the whole point of Black's rook sacrifice was geometrical: it gained a tempo *to clear the line* between the black king and rook so as to make castling possible.

Let us now turn to look at some of the leading ideas in optical logic. If we were to organize a survey of geometric effects, we could do worse than start off with two basic categories: square effects and line effects. This distinction is not intended as a systematic concept: it is more a question of emphasis. Thus, in an effect of the square type, our focus is on one or more particular squares, whilst in an effect of the line category, our concentration is more upon the lateral and diagonal control of the line-moving pieces. We have already covered many examples of both types informally. To take just one example of each, No. 3.7 featured multiple self-blocks – a square effect; No. 1.6 showed a number of *interferences* – a line effect. (Note that this problem also contained a lovely graphic effect, the black rooks and bishops being arranged as 'organ pipes'.)

Paralysis or Incarceration

Diagram 4.15 is a study by a former World Champion and shows an unusual square effect.



4.15 Draw GP(D)
V.V.Smyslov
5th HM, Shakhmaty v USSR 1937

What does White do about the unstoppable a-pawn?

1 ♘h8+ ♔g8! 2 f7+

Unfortunately the study suffers from a dual – 2 Kg6. Then 2...a2 3 f7+ Kf8 reaches the main line, while 2...Kxh8 3 Bc1! a2 (3...Nxc1? 4 f7!) 4 Bb2! Ne5+ 5 Kf5 Nf7 6 fxg7+ Kxg7 7 Bxd4+ Kf8 8 Ke4 and Kd3-c2-b3 draws.

2...♔f8 3 ♔g6!

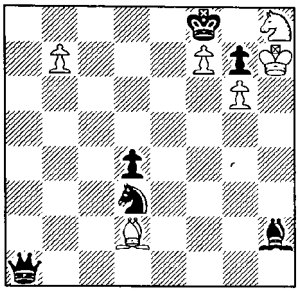
White now blithely sets about an apparently hare-brained and irrelevant manoeuvre.

3...a2

Black is powerless to upset White's plan (whatever it is). Black only loses time with 3...♘e5+ 4 ♔h7 and the

knight must return in view of the twin threats 5 ♗b4+ and 5 b8♕+.

4 ♔h7! a1♕ 5 g6!



Threatening self-stalemate with 5 ♗b4+ and 6 b8♕+.

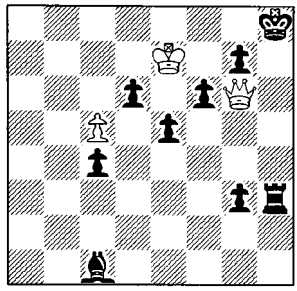
5...♕h1 6 ♗h6 ♗f4 7 b8♕+ ♗xb8 Stalemate

How did White engineer this amazing coup? Apart from getting his king securely locked up, his pawns blocked and his bishop pinned, the secret of the stalemate lies in the *incarceration* of White's knight. The pawns on g6 and f7 occupy the available squares, paralysing the noble steed; the knight itself performs the vital role of blocking a flight square.

In this study, paralysis of a white piece was exploited by White. In No. 4.16 Black's downfall is caused by the cleverly induced paralysis of his rook.

(see following diagram)

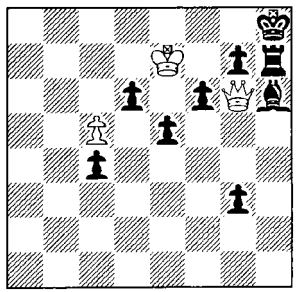
Surveying White's possibilities, we note that 1 c6? is met by 1...♖h6! and 1 ♔f8? gets nowhere against 1...♗h6!. The accurate move is **1 ♔f7!**. Now 1...♗h6 allows 2 c6 leaving Black helpless against the simple advance of the pawn.



4.16 Mate in 4 G(P)

A.Kraemer 3rd HM in Ring Tourney, Die Schwalbe, Die Welt 1949

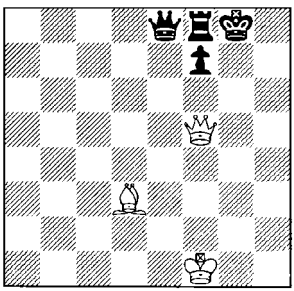
Therefore, Black must play **1...♖h7**. Now that the rook is where White wants it, he continues with **2 ♔f8!** threatening 3 ♕f7 and 4 ♕g8#. Black's only defence is **2...♗h6**, preparing a discovered check should White attempt to carry out this plan. But the black pieces have been neatly corralled, enabling the gentle, yet lethal manoeuvre to be completed with **3 ♔e7!**



and Black cannot stop **4 ♕e8#** because the rook is incarcerated and unable to vacate the h7-square.

A problem with a very special touch. Not only is the paralysis idea shown in a most satisfyingly clear form, but the white king gives the impression of bringing off the entire coup by a kind of remote control, performing a lovely little Rundlauf all the while.

It is often interesting to speculate upon the frequency of occurrence of a geometrical effect in the various genres, game, study or problem. For example, paralysis is not very often exploited by composers, but crops up – usually unnoticed – with surprising frequency in the game. Consider the typical schema in Diagram 4.17:

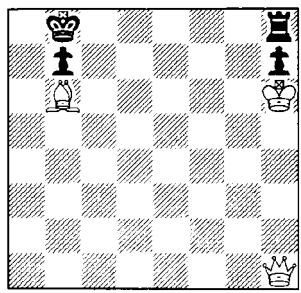


4.17 Black to Play

Because of the incarceration of the f8-rook, Black's superior force is helpless against the threat of ♕h7# and he can only try 1...♔g7 after which 2 ♕g5+ forces mate in a further two moves. If the rook could move, it would be able to vacate f8 and create a flight square which might well turn the position into a win for Black.

Fork

One of the game's most important tactical elements is the fork, or double attack, illustrated so delightfully by No. 4.12 (by Korolkov and Mitrofanov). This square effect features as the point of a problem comparatively rarely. A charming exception is No. 4.18:



4.18 Mate in 4 GPD(F)
Y.Vladimirov
Die Schwalbe 1963

After the key,

1 ♕h4!

Black is in zugzwang and we have the following five variations:

A: 1...♖g8 2 ♕h2+ ♗a8

The variation 2...♗c8 3 ♕c7 is a 'short mate', so called because it occurs before the full solution length of the problem; if 2...♖g3, then 3 ♕xg3+ followed by mate on c7 or g8.

3 ♕a2+!

An elementary fork: the queen hits the king and rook simultaneously, and **4 ♕xg8#** follows.

B: 1...♖f8 2 ♕g3+ ♔a8 3 ♕a3+! ♔b8 4 ♕xf8#

C: 1...♖e8 2 ♕f4+ ♔a8 3 ♕a4+! ♔b8 4 ♕xe8#

These variations constitute a threefold echo. A further fork occurs after:

D: 1...♔c8 2 ♕e7!

Threatening 3 ♕c7#.

2...♔b8 3 ♕e5+! ♔a8 4 ♕xh8#

The last, and intriguingly game-like variation is:

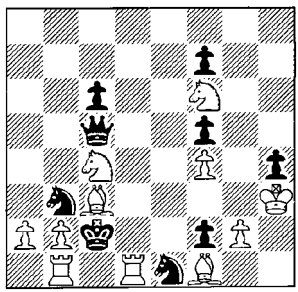
E: 1...♔a8 2 ♔g7!

Threatening simply 3 ♔xh8 and 4 ♕d8#. If now 2...♖e8 (2...♖b8 and 2...♖d8 allow short mates), we have a repeat of the 3 ♕a4+ fork.

2...♖c8 3 ♕a4+ ♔b8 4 ♕a7#

Thus 2...♖c8 turns out to be a prospective selfblock and the variation provides a pleasing pinch of variety.

Focal Play



4.19 Mate in 3 G
R.C.O.Matthews, 1st Prize
The Problemist 1951

A very popular idea amongst problem composers is the *focal theme*, which is, in a sense, the opposite of a fork and is, incidentally, a very clear illustration of what is meant by optical logic. Consider Diagram 4.19:

The black knights are tied down to preventing mates on c1 and d3, and the queen is in a 'focus', having to keep an eye on a3 and e3 simultaneously. If it were Black to move, **1...♕xc4** would be met by **2 ♗xc4**, threatening 3 ♗xb3# and if the ♘b3 moves, one of the rooks would give mate on c1. Black can, however, set up a new focus by playing **1...♕a7!** which still keeps control of the ♘c4's mating squares. To this White has the deliciously delicate riposte **2 ♗b4!** which places Black in zugzwang: the knights are still tied down, and, because of White's last move, the queen cannot return to her original focus on c5 because the bishop now interrupts the line from c5 to a3. The only remaining move, **2...c5**, results in an interference, whereby the queen's guard of e3 is cut, allowing **3 ♘e3#**. Note the very important feature that, had White attempted **2 ♗d4?** instead, the queen would be able to cope by resorting to a third focus with **2...♕e7!**. And, speaking of the move ...♕e7, what would happen if Black were to play this on the first move? Yes, you've spotted it, after **1...♕e7**, White has a crusher which is analogous to the first variation, namely **2 ♗d4!** and again Black is unable to retain the focus. This time **2 ♗b4?** would not succeed because of **2...♕a7!**

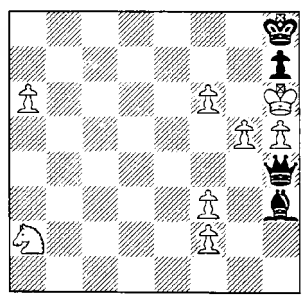
So far, all we have seen is the purely hypothetical situation if it were Black to play in the diagram. In fact, as you probably suspected, there is no means by which White can maintain the status quo, and the key move is the radical **1 ♘d7!** threatening the brutal capture of the queen. Since **1...♕xc4** still fails to **2 ♗xc4**, Black must defend by moving the queen to a7 or e7, keeping control of a3 and e3: **1...♕a7 2 ♗d4!**. White's key move has turned the situation upside-down, because **2 ♗b4?** instead fails to **2...f6!**, a waiting move which Black did not have before. On the other hand, after **2 ♗d4!**, Black does not have any way of preventing the threatened **3 ♘e3#** whilst at the same time maintaining the guard on a3: the d7-knight prevents the queen from moving to the alternative focus on e7. And by applying the same logic, it is easy to see that the reply to **1...♕e7** is **2 ♗b4!**.

There are two further geometrical features of this brilliant problem which we must mention before passing on. The first one is the *symmetry* of the position and the play. The c-file is the central axis and all the important squares are paired off on either side of it: a3 and e3; b4 and d4; a7 and e7. Symmetry is often an attractive feature in a composition, but sometimes it can make the play seem too mechanical. Because Matthews' work contains just two symmetrical variations, they complement each other ideally; a further pair of this kind would probably have been over the top.

The second interesting feature of the problem lies in the relationship between the *set play* – the variations which would be possible were it Black to play in the initial position – and the *actual play*. In the set play, 1...♕a7 and 1...♕e7 were answered by 2 ♗b4 and 2 ♗d4 respectively; in the actual play, the same two defences are answered by 2 ♗d4 and 2 ♗b4 respectively. In other words, the white continuations have been switched round, leading to the theme of *reciprocal change*. Such formal relationships among moves will be further discussed under Extended Geometry at the end of this section.

The idea of focal play will be recognized by players as related to the 'overloaded piece', a recurrent tactical motif.

Diagram 4.20 is a neat illustration in a study.



4.20 Win G(P)(F)
L.A.Isaev & S.S.Levman,
1st Prize, Magyar Sakkvilag 1926

1 a7

Not 1 f7?? ♕f4 and White is embarrassed for a defence against 2...♕d6+ 3 g6 ♕f4#.

1...♕a4 2 f7 ♕a3

This is the only spot from which to control both pawns' promotion squares, since 2...♕c6+ 3 g6 ♕c8 4 g7 is mate. The queen is now in a focus and White proceeds to overload it.

3 ♘b4!

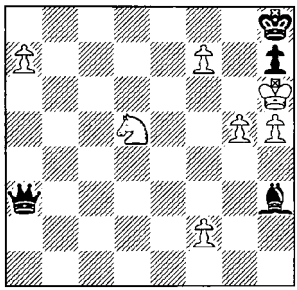
Did you notice that Black was threatening mate in one?

3...♕xf3

Again the queen finds the one adequate defensive square.

4 ♘d5! ♕a3

If 4...♗c8!?, then 5 ♘f6! (not 5 a8♕?? ♕f6+! drawing) 5...♕a3 6 ♘xh7 wins.



5 ♘e7! ♕f3

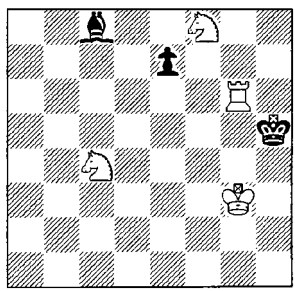
The queen has been thoroughly humiliated by the knight, but to what purpose?

6 ♘g6+ hxg6 7 hxg6

And the pawns triumph over the queen as the threat of **8 g7#** is added to the promotion threats, and this is too much. Unfortunately, this otherwise delightful little work has an unwanted *dual*. The equally thematic 6 ♘f5 also wins, as discovered by *Fritz 3*! A number of studies will doubtless be 'cooked' by computer analysis; we hope not too many of those in this book will suffer such a fate! In our opinion, a dual such as 6 ♘f5 does rather spoil the aesthetic value of the above study, but does not completely ruin it.

Interference

We move on now to look at one of the many line effects catalogued by problemists, that of *interference*. This term refers to the closing of a line of one piece by another piece of the same colour, creating a weakness which can be exploited by the opponent. The organ-pipe problem, No. 1.6, was a fine example in a two-mover. Let us have a look at a pretty miniature:



4.21 Mate in 3 G

James Quah, Kipping Prize
The Problemist 1992

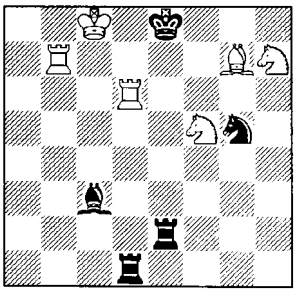
White begins with **1 ♘e3** threatening 2 ♘d5, which in turn threatens 3 ♘f4#. If Black prevents this with 2...e5 then this allows 3 ♘f6#. Therefore, Black has to concentrate on preventing

2 ♘d5. If he tries **1...e6**, then **2 ♘g4!** followed inevitably by **3 ♘f6#**; the interference of the pawn with the ♗c8 allowed the knight to occupy g4 with impunity. If Black tries **1...♗e6**, there comes **2 ♘g2!**. This shows Black's first move to be a more subtle interference – its effect is not seen immediately, but rather on the next move, in that the e6-bishop prevents 2...e5 and Black is therefore unable to prevent **3 ♘f4#**.

This problem shows one of the most famous problem themes, the *Grimshaw*, in which two line-moving pieces mutually interfere on the same square, in this case e6. And yes, the pawn is a 'line-moving piece' when, as here, it is on its initial square and therefore capable of making its 'double-move'.

Novotny

Have you heard of a Novotny? If not, you will certainly find it useful, whether as player or composer.



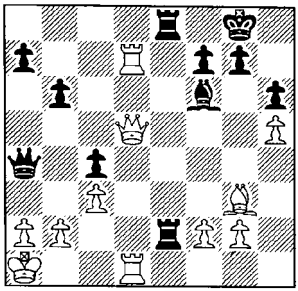
4.22 Mate in 2 G(P)
M.Lipton, 2nd Prize
B.C.P.S. Ring Tourney 1966

A Novotny is the sacrifice of a piece on the intersection square of two enemy line-pieces, often leading to a double-threat. It is a blend of line effect and square effect. No. 4.22 is an elegant example.

If we look first at the c3-bishop and the e2-rook, their intersection square is e5, so we can try **1 ♗e5?** threatening 2 ♘g7#/♖e7#. Black manages to refute this with **1...♘xh7!** removing White's control of f8. The intersection square of the c3-bishop and the d1-rook is d4, which looks very promising. Let us try **1 ♘d4?** threatening 2 ♘f6#/♖d8#. Again Black finds a saving resource, this time **1...♖e7!** shutting off the control of f7 by the rook on b7. How about **1 ♖d4?** instead? This threatens 2 ♘d6#/♘f6#. Black can prevent both these threats with 1...♘e4, but this interferes with the e2-rook and allows 2 ♖e7#. Nevertheless, Black can escape with the simple fork **1...♖e6!** which protects both mating squares without incurring any weakness. Finally, we try **1 ♗d4!** and this has the one double-threat that is irresistible: **2 ♘g7#/♖d8#.**

This problem is a typically modern work, showing a great deal of interesting strategy in the tries and their refutation, but a negligible amount of play after the key. It is also an impressively economical work, with the distinction of being completely devoid of pawns; problemists call such compositions 'aristocrats'.

Craig Pritchett overlooked a Novotny to his cost when both players were in time trouble:



4.23 Black to Play
A.Miles-C.Pritchett
Lloyds Bank Masters, London 1982

32...♗xc3? 33 ♕xf7+ ♔h8??

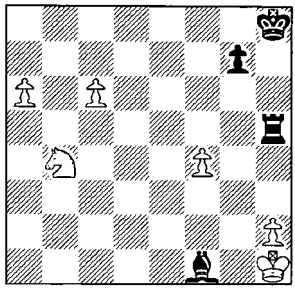
33...♔h7! would have led to an unclear position after 34 ♗e5! ♕xd7! 35 ♕xd7 ♗xe5!.

34 ♗e5!! Black resigns

There is nothing to be done against the threats of 35 ♕xg7# and 35 ♕xe8+ followed by mate. If 34...♖g8, then 35 ♗xc3 wins a piece. With the king on h8, 34...♕xd7 does not help either: 35 ♕xd7 ♗xe5 36 ♕xe8 is check.

In the diagram position, Black can win with **32...♕c2!** 33 ♖b1 (White must resist the temptation of 33 ♕xf7+? ♔h8 34 ♖b1 ♗xc3 35 ♗e5 ♕xb2+! followed by mate, because the queen can no longer interpose on d1 after 38...♖e1+) 33...♗xc3 34 ♗e5 and now simply 34...♗xe5 wins as after 35 ♕xf7+ ♔h7! the queen on c2 controls g6 whilst White cannot capture on e8 because of the mate on b2.

The Novotny has been used in so many different ways by problem and study composers that a hefty and very enjoyable tome could be written on the subject. The next study shows the theme twice in an elegant setting:



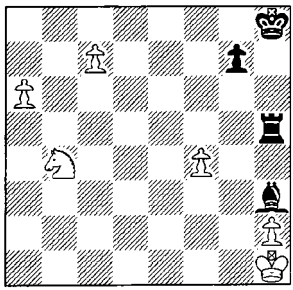
4.24 Win G(P)(F)
A.O.Herbstman
Shakhmatny Listok 1929

1 c7

1 a7? fails after 1...♖a5 2 c7 ♗h3 when there are no tricks.

1...♗h3

1...♖c5? 2 a7! and the pawns cannot be stopped.



2 f5!

The pawn gallantly sacrifices itself on the intersection square of the rook's operation along the rank and the bishop's operation along the diagonal.

2...♗xf5

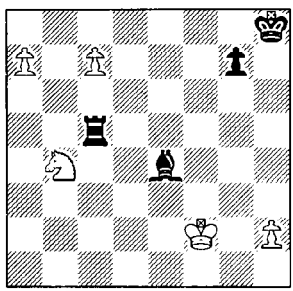
2...♖xf5? 3 c8♕+ ♔h7 4 ♕c4 is easy for White.

3 a7 ♗e4+ 4 ♔g1 ♖g5+ 5 ♔f2!

After 5 ♔f1? ♖f5+ 6 ♔e2 ♖f8 it's Black who is on top.

5...♖c5

This time the difference is that after 5...♖f5+ 6 ♔e3 ♖f8 the king captures the bishop and then the win is achieved by transferring the knight to b6: 7 ♔xe4 ♖a8 8 ♘d5.



Now comes Novotny number two:

6 ♘c6! ♖xc6

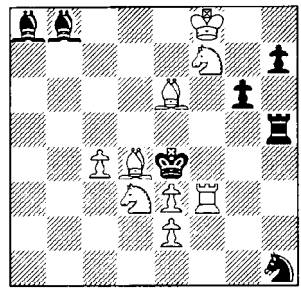
Similarly 6...♗xc6 7 c8♕+ is easy for White.

7 a8♕+

White wins.

Critical Play

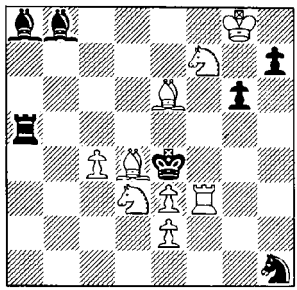
Another blend of square and line effects is *critical play*. A *critical move* is executed by a line-moving piece passing over a *critical square*, which is later occupied by another piece, thereby blocking the return path. This might sound a little complicated, but it is actually a problemist's expression of an important tactical motif, which is so 'optically logical' that players probably take it for granted. No. 4.25 is an elegant example.



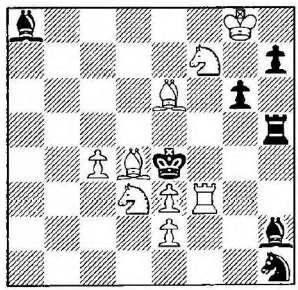
4.25 Mate in 3 G(P)(D)
Alfred Sutter, 1st HM
Parallèle 50, 1950

The key is **1 ♔g8!** threatening the Novotny 2 ♘fe5, with the threats 3 ♘c5# and 3 ♖f4#. If White were to try 1 ♘fe5?, 1...♗d6+! gains time to defend c5 and, after the king has moved, Black can easily prevent the other threatened mate. After the key move, however, Black cannot play 1...♗d6 as this would allow immediate mate. Black can defend against the threat by getting the rook or bishop beyond e5, so as to leave only one threat to cope with on the second move: **1...♖a5** defeats the threat of 2 ♘fe5 because then there would be only one threat, 3 ♖f4#, which would be prevented by 2...♗xe5.

The drawback of 1...♖a5 is that White too can exploit the fact that the rook is now west of e5 by selecting a different Novotny:



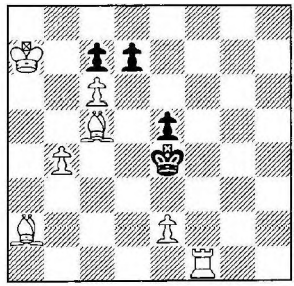
2 ♘de5! with the decisive double-threat of 3 ♖f4# and 3 ♘g5#. Similarly, Black can defeat the threat by **1...♗h2**, so that after 2 ♘fe5? ♖xe5! there is no mate. Again, White can capitalize on the fact that the bishop has moved to the near side of e5 with a third Novotny:



2 ♗e5! with the threats 3 ♘c5# and 3 ♘d6#. The only other variations are **1...♖f5(d5)** which are straightforwardly met by **2 ♗xf5(d5)+** followed by **3 ♘c5#**. The whole affair is like a beautiful piece of Swiss clockwork.

In this problem, Black's defences **1...♖a5** and **1...♗h2** were critical moves with respect to e5 because the white pieces were able to shut the rook and bishop off by playing a piece to that critical square, threatening a mate on the other side of it. The intriguing thing about the problem is that these Black defences were also *anti-critical* with respect to e5, because they *countered* a shut-off which White threatened on that square.

The concept of critical play has been very fertile ground for composers. The original use of the idea was in the Indian theme, where White plays a critical move followed by a self-interference to relieve stalemate, followed by a discovered mate. This recipe should enable you to solve No. 4.26 quickly:

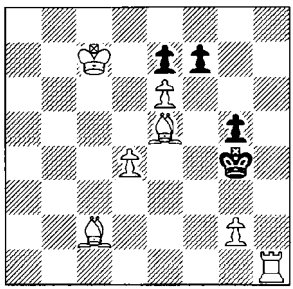


4.26 Mate in 3 G
D.G.McIntyre
Natal Mercury 1917

1 ♗g8! dxc6 2 ♖f7! ♔d5 3 ♖f4#. The

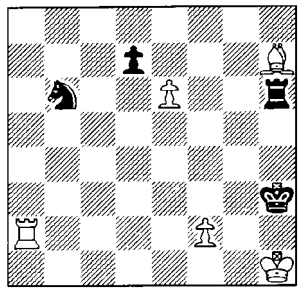
bishop passes over the critical square f7, allowing the rook to interfere with it, luring the king onto a square where he can be mated. There is a pleasing side variation after **1...d6 2 ♗g1!** (the only safe square for the bishop on the g1-a7 diagonal) **2...d5 3 ♗h7#**.

This is not all that the problem has to show. If you move the entire position two files to the right, so that the white king is on c7 and the black king on g4 and so on, a new problem, also a mate in three, is produced.



Now we see a very interesting demonstration of chessboard geometry, because there is insufficient space for the former key (1 Bi8??). On the other hand, the black king is now much nearer to the board edge and this means that the king can be mated on a different square with another Indian manoeuvre: **1 ♖h8! fxe6 2 ♗h7! ♔h5(4) 3 ♗f5#**. In this line the rook and bishop exchange roles. There is a bonus in this setting, because not only is the key critical with respect to h7, it is also anti-critical with respect to h2, as is seen in the variation **1...f6 2 ♗h2 f5 3 ♗d1#**.

A useful tactic to bear in mind is the decoying of a piece over a critical square so as to shut it off, as is neatly demonstrated in No. 4.27:



4.27 Win G(P)

H.Rinck

2nd Prize, Sydsvenska Dagbladet Snällposten 1911

White appears to have insufficient material advantage to win. 1 exd7, with the idea of 1...♘xd7 2 ♗f5+ forking the knight, fails to the in-between move 1...♔g4+! The attempt to improve by 1 ♗f5+ doesn't work: 1...♔h4 2 e7 (or 2 exd7 ♔g5+ 3 ♔g2 ♖d6 and the d7-pawn is lost) 2...♔g5+ 3 ♔g2 ♖h8 4 ♖e2 (or 4 ♗h3 ♘c8 5 ♖a8 ♔f6 6 ♗xd7 ♖g8+ followed by 7...♘xe7) 4...♖e8 and the attack on the bishop gives Black enough time to surround and win the e7-pawn.

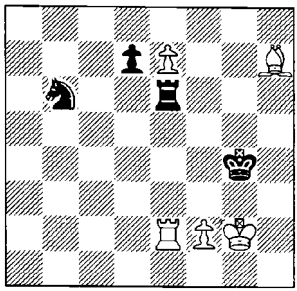
1 e7!

By leaving the bishop on h7, White keeps the black rook's route to h8 closed.

1...♔g4+

Black must again prepare ...♖e6 by cancelling the fork on f5.

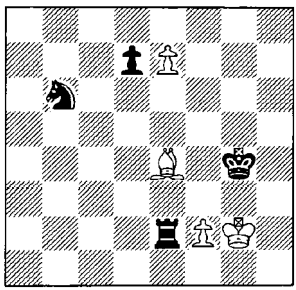
2 ♔g2 ♖e6 3 ♖e2!!



This is the decoy move: Black must take, and in doing so the rook passes over the critical square e4.

3...♖xe2 4 ♗e4!

And this is the shut-off. In this case, it has the charming feature that the bishop is only indirectly defended.



4...♖xe4

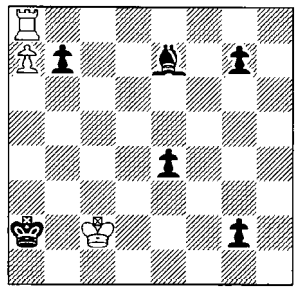
There are no improvements. The attempt to maintain rough material parity by 4...♔f4 5 e8♕ ♖xe4 fails to 6 ♕b8+ winning the knight. In this line, 5...♘d5 (there is no other hiding place for the knight – 5...♘c4 6 ♕f7+) is met by 6 ♕h5! ♘e3+ 7 ♔h3!.

5 f3+

and White captures the rook and queens the pawn.

Bristol

Invented by a problem composer, the Bristol manoeuvre is a device well worth bearing in mind by all players.



4.28 Win GF(D)
A.P.Guliaev
3rd HM, A.Troitsky Tourney, Zadachi a Etiudi 1929

The idea is clearly demonstrated in No. 4.28, which kicks off with:

1 ♖h8!

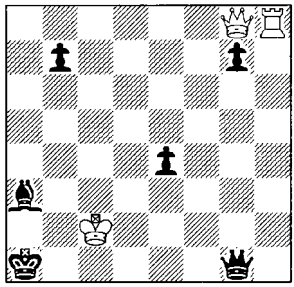
The first part of the Bristol. It is obvious that the rook has to make room for the pawn to promote, but the reason for choosing the most distant square will soon be seen.

1...g1♕ 2 a8♕+ ♗a3 3 ♕g8+

Here it is. The new-born queen follows in the rook's tracks; if the rook had played to any other square on the eighth rank, it would have prevented the queen from reaching the g8-square. This effect, where a piece clears a line

for another piece by moving to the end of that line, is called the Bristol Theme. It bears this name because of a three-mover by Frank Healey which first showed the idea, winning the First Prize in the Bristol Tourney of 1861. It has remained one of the most popular geometric themes ever since.

3...♔a1



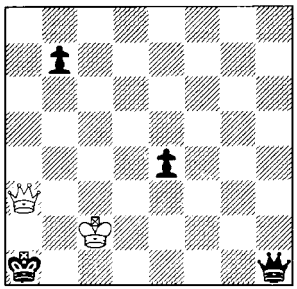
4 ♖h1!

Sacrificing the rook to decoy Black's queen. A forced mate now ensues, brought about by the white queen performing yet another geometric motif, the staircase. Other examples of this charming effect are No. 5.1, showing a king descending the stairs, and No. 9.14, in which a rook does the honours.

4...♕xh1 5 ♕xg7+ ♔a2 6 ♕f7+ ♔a1 7 ♕f6+ ♔a2 8 ♕e6+ ♔a1 9 ♕e5+ ♔a2 10 ♕d5+ ♔a1 11 ♕d4+ ♔a2 12 ♕c4+ ♔a1 13 ♕c3+ ♔a2 14 ♕b3+ ♔a1 15 ♕xa3#

(see following diagram)

The synthesis of the two geometric devices of Bristol and staircase has yielded an enjoyable, if rather easy study. One negative note might be sounded by purists of the Logical School of composition (which we describe in Chapter Eight): the purpose of the rook's move to h8 was not only to allow the queen to move to g8, but also to go to h1 afterwards.

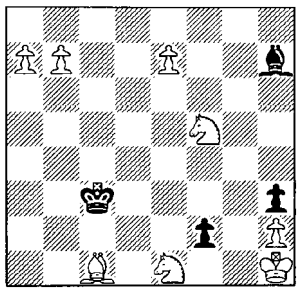


According to the tenets of this school, there should be 'purity of aim' in the white manoeuvre, implying that the rook should play no further part after the Bristol has been executed. To most chess players this criticism would be baffling, particularly in the context of a study rather than a problem; we tend to slave over our chessboards searching precisely for those moves which have as many advantages as the position will endow. This is one of the few areas where a particular artistic viewpoint does not coincide with the intuition of the player.

The Extended Meaning of Chess Geometry

At the beginning of this section, we described chess as a visual art. We have

reviewed a selection of geometric ideas which support this conception by the manner in which they establish pleasing relationships among squares, lines and the pieces which occupy and move along them. Extended geometry is about conceptual patterns, generally fairly abstract ones. Let us look again at one of the most popular of these – the full set of underpromotions. In Diagram 4.2 (Herbstman) we saw three underpromotions in separate variations. In our next position, 4.29 they come one after the other in a single line of play.



4.29 Win GPF(D)
E.L.Pogosiants
(after M.S.Liburkin), 1st HM
Schakend Nederland 1975

White has two extra pieces and a selection of pawns on the seventh rank. His king, however, is in serious trouble.

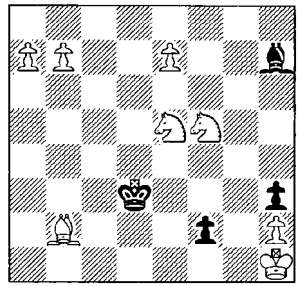
1 ♗b2+ ♔d2

The whole b-file is mined on account of 2 b8♕+. 1...♔c4 allows 2 ♘e3+ with tempo (e.g. 2...♔c5 3 ♘f3 ♗e4 4 ♗a3+ followed by queening with check). So 1...♔d2 is forced.

2 ♘f3+ ♔d3

The only move, avoiding both the e-file and 3 ♘e3+.

3 ♘e5+



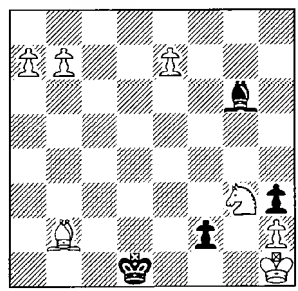
3...♔e2

After 3...♔d2, the continuation 4 ♘c4+ ♔d3 5 ♘ce3 ♗xf5 6 e8♕ is safe enough.

4 ♘g3+ ♔d1

Clearly the best square, since 4...♔e3 and 4...♔d2 allow destructive knight checks. The text prepares 5 e8♕?? ♗e4+! 6 ♘xe4 f1♕#, as well as a cunning stalemate trap.

5 ♘g6 ♗xg6



The scene is set for an astounding series of underpromotions. The point is that White must avoid 6 e8♕? ♗e4+ 7 ♕xe4 f1♕+ 8 ♘xf1 with a surprise stalemate.

6 e8♖!! ♗xe8 7 b8♘!

To cover the c6-square, Black now prepares the same stalemate as before, only to be thwarted by yet another underpromotion.

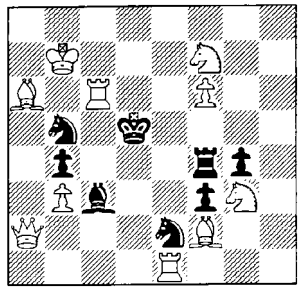
7...♗g6 8 a8♗!!

After three consecutive underpromotions White wins on material.

The sort of patterns we are classifying under extended geometry are extremely rare in over-the-board chess. They are even unusual in studies, but such abstract ideas have become the very stuff of which problems are made. Problemists never seem satisfied. Just as opening variations become high fashion in tournament chess for a time, so are new themes and ideas heavily exploited, until enthusiasm wanes and the fashion changes. So it was one day when the interest of composers of two-movers subtly shifted from visual to abstract art. This was not just a new theme, however, but a whole complex of ideas; the change was to a new epoch, paralleled in the game perhaps by the advent of the Hypermodern School.

The abstractions which were the subject matter of this new age focus essentially on the relationships between move-sets, rather than upon the physical relationships we have been looking at hitherto. Let us look at two of the leading ideas.

Correction Play



4.30 Mate in 2 G
M.Parthasarathy, 1st Prize
The Problemist 1963
Brian Harley Award

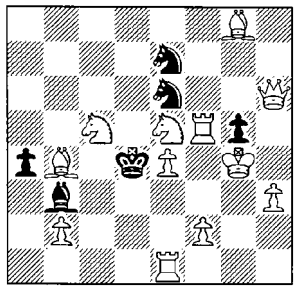
Diagram 4.30 is solved by **1 ♕c2!** placing Black in zugzwang. If the bishop on c3 moves *randomly*, denoted by **1...B~**, it opens a line for the queen to mate by **2 ♕c5#**. The bishop can *correct* this error by **1...♗d4!** which, though it still commits the error of the random move, avoids the original punishment by protecting c5. However, it commits another error, which is to interfere with the f4-rook, allowing **2 ♕c4#**. If we now turn our attention to the knight on b5, **1...Nb~** unguards d6 allowing **2 R(x)d6#**. By playing **1...♘bd4!** instead, this mate is prevented because the control of c5 by the f2-bishop is cut. Again, the correction interferes with the f4-rook, this time permitting **2 ♗c4#**. Looking now at the knight on c2, if **1...Ne~**, the line of the e1-rook to e6 is opened, allowing the c6-rook to release its hold on this

square and to play **2 ♖c5#**. Black's knight can correct this error by cutting off the f2-bishop from c5 with **1...♘ed4!**, but this time there is an interference with the c3-bishop allowing **2 ♖e5#**. Finally, we consider the rook on f4. All its moves lead to **2 ♕(x)e4#** except 1...♖c4 2 bxc4#, and **1...♖d4**, which again interferes with the c3-bishop leading this time to **2 ♕f5#**. The rook moves are a small blemish to the purist, because 1...♖d4 is not strictly a correction as it does not commit the error of unguarding e4 in the first place. Nevertheless, this is a superb problem, showing four random and correction pairs leading to eight distinct mates, where the correction moves are all interferences on d4. **1...♗d4** and **1...♖d4** also conform to the Grimshaw theme, defined above.

Patterns

The three-move problem, No. 4.19, discussed under focal play showed the theme of reciprocal change, in which, after Black moves **1...x** and **1...y**, White replies **2 A** and **2 B** respectively in the set play, and **2 B** and **2 A** respectively after the key. We have expressed the structure of the theme symbolically so as to emphasize the abstract pattern expressed by the relationship between the two white mating moves. Indeed, every theme in the rich complex of pattern themes is defined in much this way, expressing the move-relationships symbolically.

As can be seen from the definition of reciprocal change, it is a *two-phase* theme: the first phase occurs before the key in the *set play* and the second is the *actual play*. Some pattern themes are entirely contained in the actual play, as in No. 4.31:



4.31 Mate in 2 G
C.J.Morse, 2nd Prize
British Chess Magazine 1962

The good key is **1 ♕f8!** and, just as in the preceding problem, Black is in zugzwang. Again, the story is one of random and correction moves, but there is a difference as you will soon notice. **1...♘e7~** opens the queen's line to c5 allowing **2 ♗c3#** (let us call this Mate **A**). The correction is **1...♘d5!** protecting c3, but interfering with the bishop on b3 to allow **2 ♘xe6#** (Mate **B**). If we move the b3-bishop randomly off the a2-e6 diagonal, **2 ♘xe6#** (Mate **B**) again results. Black can correct the error of unguarding e6 by **1...♗d1+!** but this loses control of d1 for **2 ♖xd1#** (Mate **C**). If instead we move the b3-bishop randomly along the a2-e6 diagonal, control of d1 is again lost and **2 ♖d1#** (Mate **C** again) results. The bishop can correct this error with

1...♗c4! preparing to interpose on d3, but this blocks a potential flight square enabling White to release it with **2 ♘f3#** (Mate **D**). The e6-knight moving randomly opens the line of the g8-bishop to c4, again allowing **2 ♘f3#** (giving Mate **D** again). The knight corrects by **1...♘xc5** ruling out 2 ♘f3 because d3 would become a flight; however, c5 is now blocked, enabling the b4-bishop to release it for **2 ♗c3#**, and we are back at Mate **A**.

Let us step back a little and review what is going on in this problem. There are four pairs of random and correction moves, much as in the Parthasarathy work, but here there are only four distinct mates, instead of the full complement of eight. Each of the four mates occurs twice, once after a random move and once after a correction move from a different pair. If you wrote down the mates in their paired sequence, the following pattern emerges: **A-B, B-C, C-D, D-A**. Because of the cyclic nature of this pattern, the theme is known as *cyclic black correction*. Sir Jeremy Morse was the first to extend the cycle from three to four mates with this pioneering problem.

It is strange to reflect that this very formal, mathematical kind of beauty is being wrought with chess pieces. Indeed, it is too remote from the game for the taste of many a player, but the realm of chess art is very broad, and there is plenty to offer those who prefer realism.

Chapter Five

Flow

'All things arise and pass away.'
Buddha

'Go with the flow'
Popular saying

We come to the last of our four elements – 'flow', probably the hardest to define rigorously. As was indicated in the Introduction, flow relates to dynamic movement in chess, and is usually exhibited by a series of moves rather than a single one. The longer the sequence of moves for which the tension is maintained, the greater the flow. More generally 'flow' could be regarded as the major aesthetic component of a sport/art such as ice skating. A series of dominoes knocking each other over would also exhibit flow.

The main characteristic of flowing chess is crispness. Long and difficult side variations, clouding the clarity of the main line, get in the way of appreciating aesthetic flow. This does not mean all the moves have to be trivial, it is simply that flow is independent of depth. The degree of tension created by a sequence of moves may be seen as the flow 'multiplied' by the depth of the sequence. The greater the tension, the stronger the aesthetic effect.

Smooth and Turbulent Flow

Only two types of flow will be distinguished. The more common form is 'smooth flow' where, typically, one side dominates the other and controls the play over a lengthy sequence of moves. The rarer form is 'turbulent flow' or 'passage at arms' where, for a series of moves (not necessarily so long) the play is very violent. High dramatic content, twists, cuts and thrusts, and paradoxical

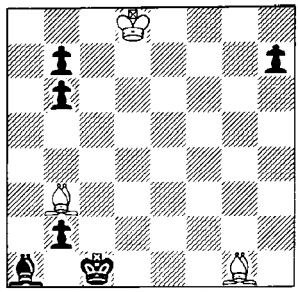
moves characterize the play. The tension is maintained, but changes its form rapidly as both sides hit the other with powerful moves. Which type of flow you find more pleasing may very well depend on your character.

Most top class games of chess have an element of flow in them. In this section we will look at just two games but further examples will be found later in the book. There is little flow in short problems such as mate in two or three, but there can be flow (usually of the smooth variety) in longer problems. The section ends with an extraordinary problem by Markus Ott, in which the flow lasts for over a hundred and fifty moves. Further long problems can be found in the problem chapters towards the end of the book. However we start off by illustrating flow with the help of five wonderful studies. The first three show 'smooth' flow and the other two have phases of 'turbulent' flow. Further examples of studies with both forms of flow will be found in the studies section in part two.

I (JL) memorized the following study (by the brilliant Georgian grandmaster of composition, Gia Nadareishvili) after coming across it as a junior. I still remember it even today, more than fifteen years later.

(see following diagram)

White, with his extra bishop, must maintain complete control since the advanced black pawn on b2 is threatening to queen.

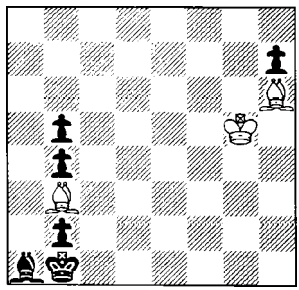


5.1 Win FP(G)
G.Nadareishvili, 1949
Source unknown

1 ♗e3+ ♔b1 2 ♗h6!

Blockades the pawn. Black now tries for a stalemate, which he threatens in three moves. White must bring his king down the board and this is achieved with the help of a 'ladder':

2...b5 3 ♔e7! b4 4 ♔f6 b5 5 ♔g5!



Blocking the bishop just in time, releasing the stalemate. The white king now 'ladders' down the board. He has a choice of squares to achieve this effect but the basic idea is the same. The re-

peated pattern of the ladder is both geometrical and flowing.

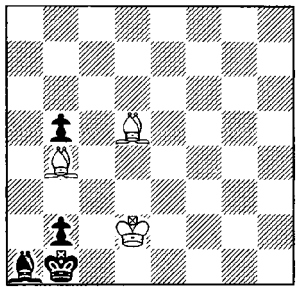
5...♔c1 6 ♗f5+ ♔b1 7 ♔f4! ♔c1 8 ♔f3+ ♔b1 9 ♔e3 ♔c1 10 ♔e2+ ♔b1

Now the only way to make progress is to release the h-pawn.

11 ♗d2 h5 12 ♔d1 h4 13 ♗xb4 h3 14 ♔d2 h2 15 ♗d5

White's last two moves could have been in either order, a minor flaw in a study of this length. Black must now promote; it does not matter what to.

15...h1♕ 16 ♗xh1 ♔a2 17 ♗d5+ ♗b1



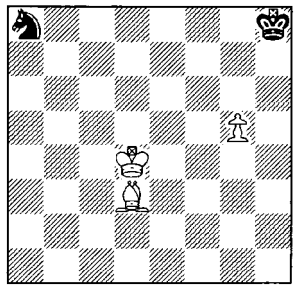
Now it is mate in four, but precise play is needed first of all:

18 ♗a3! b4 19 ♗b3! bxa3 20 ♗g8 a2 21 ♗h7#

Again the bishop had a choice of squares on move 20.

At the time, I felt the wonderful flow and the snap, paradoxical finish (a smothered mate effect) more than made up for the minor defects. One can only dream of finishing a real game off with a sequence like that! The tension is maintained for a large number of moves. The flow is smooth since White completely controls the play, Black simply doing what he has to do. Nowadays, jaundiced by experience, I find the defects more significant, but quite forgivable on a good day. Basically the study is a bit dodgy on the soundness front but the main line is both enjoyable and spectacular.

Long, flowing sequences are achieved with extreme economy in the next two positions. Kasparian, necessarily laconic as he squeezed 2545 domination studies into one book, described the first position as a 'gem of endgame composition'.



5.2 Win FPDG

G.Zakhodiakin

1st prize, '64' 1931

To win White must prevent Black from sacrificing his knight for the pawn. Further than this he must also win the knight since the pawn cannot otherwise be forced past the g7-square. An assortment of domination and zugzwang ideas are used to achieve these ends, but first (paradoxically) the knight is forced over to the kingside, in order to obstruct Black's king.

1 ♔c5

Threatens 2 ♔c6 trapping and winning the knight. Black must escape:

1...♘c7 2 ♗d6 ♘e8+

Forced in view of 2...♘a8 3 ♔c6!.

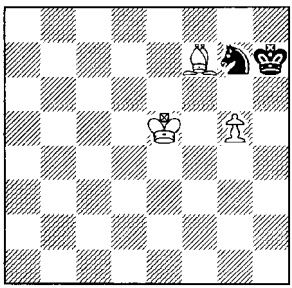
3 ♔e7 ♘g7

Necessary since 3...♘c7? allows 4 ♔f7! when the g-pawn decides the issue immediately.

4 ♗g6!

Trapping the knight. Black's options are limited but one deep move is still necessary to seal his fate.

4...♔g8 5 ♗f7+ ♔h7



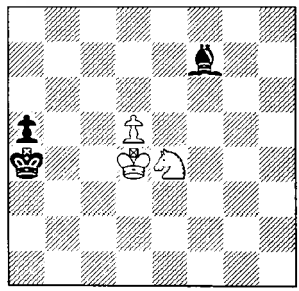
5...♔h8 leaves White with an easier task: 6 ♔f6 ♔h7 7 ♔e5 ♔h8 8 ♔f4 ♔h7 9 ♔g4 ♔h8 10 g6 wins. After 5...♔h7 White must aim for the same position by losing a tempo. His king must stay in contact with the f5-square to stop the knight escaping, and so there is only one convenient place to 'triangulate' – around the e5, e4 and f4 squares. Meanwhile Black can only oscillate with his king.

6 ♔f6 ♔h8 7 ♔e5 ♔h7 8 ♔e4!

A deep move by the king, subtly losing a tempo on his path to g4.

8...♔h8 9 ♔f4 ♔h7 10 ♔g4 ♔h8 11 g6

White wins the knight (and then the game) by means of zugzwang. It is very surprising that White can force a win from the start – most top players would simply assume it was a draw. The final zugzwang is also 'paradox'. There is a deep idea of triangulating (8 ♔e4!) and also a pleasing appearance to the initial set-up with both black pieces in the corners. But the flow of the play, chasing the knight from one side to the other with a series of delicate moves, is the dominant aesthetic element. The extreme economy with which all this fine play is achieved ranks this study very high indeed. It is a very pure piece of chess, for the connoisseur, with less immediate appeal.



5.3 Win FG

J.Lerch, 1st Prize
Magyar Sakkélet 1988

Similar considerations apply to the next, much more recent study. The smooth flow of the play, a whole series of domination ideas and the striking economy make a powerful impression.

There's nothing remarkably deep or paradoxical about any single move, so it really is the flow (and to some extent the 'geometry' of domination) that is responsible for the effect.

White wins if he can promote his d-pawn.

1 d6 ♗e8

1...♗e6 2 ♘c5+ ♔b5 3 ♘xe6 ♔c6 4 ♔e5 wins.

2 ♘f6 ♗c6!

After 2...♗b5? 3 ♔c5! zugzwang decides the game at once.

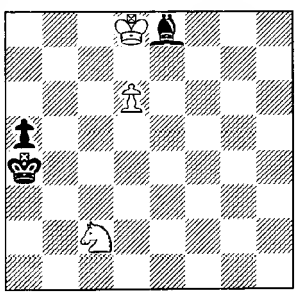
3 ♔c5 ♗b5 4 ♔b6 ♗b4 5 ♘d5+ ♔c4 6 ♘e3+ ♔b4 7 ♘c2+ ♔a4

Black is always restricted to just one move as the knight pirouettes across the board.

8 ♗c7 ♗e8

Moving the king runs into yet another knight fork.

9 ♗d8



9...♗h5

After 9...♗b5 10 ♔e7 ♗c6 11 ♘d4 White can force through the pawn, while 9...♗g6 fails to 10 ♘d4 ♗h5 11 ♔e7 ♗g4 12 ♘e6.

10 ♘e3 ♗e2

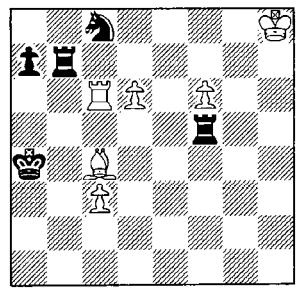
Moving the bishop to f3 instead loses immediately to 11 ♔c7.

11 ♔e7 ♗b5 12 ♘c2!

and 13 ♘d4 wins.

Think twice in future before swapping that knight off for the bishop! Right through the play it is clear White is better with his further advanced pawn and the badly placed black king. Better, but only just winning after a superbly balanced battle for supremacy of the key squares. Without the black pawn on a5 the lack of zugzwang would leave the position completely drawn. Playing over this study can have quite a hypnotic effect.

The following study by the great Kasparian shows turbulent flow and features an astonishingly resourceful defensive idea by Black.



5.4 Win FPG

G.M.Kasparian

Shakhmatny Listok 1930

White is a rook down but has two dangerous passed pawns on the sixth rank. There is a violent start as both sides make forceful, obvious moves

that any self-respecting family player could relate to.

1 ♖a6+ ♖a5 2 f7

Threatening to queen, so Black gives up his rook.

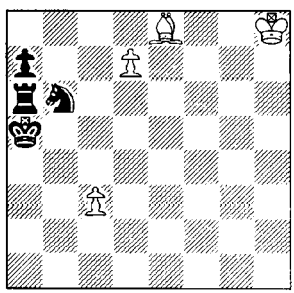
2...♖xf7 3 ♗xf7!

Exchanging rooks first would only draw. White has left his rook on a6 *en prise* so as to capitalize on the passed d-pawn. Black must take the rook since 3...♘xd6? 4 ♖xd6 leaves him lost 'on material'.

3...♖xa6 4 ♗e8+!

After the direct 4 d7? ♘d6! Black defends since 5 ♗e8 is met by 5...♘f7+! (5...♘b7? 6 d8♕+) 6 ♗xf7 ♖d6 with a drawn position. Hence White gives the bishop check first expecting to simply win by queening the pawn. So far the play has had a heavy, 'Thump! Thump!' nature to it (turbulent flow) but now Black uncorks an astounding stalemate trap, the central idea of the study.

4...♔a5! 5 d7 ♘b6!!



So that 6 d8♕? is a surprise stalemate, the point of Black's last two paradoxical moves – notice the self-incarceration of Black's rook. White counters this by underpromoting to a rook, not so surprising in itself (Black threatened 6...♘xd7) but placing Black in an unexpected zugzwang!

6 d8♖!! ♘c4

If 6...♘a4, 7 ♖d5+ ♔b6 8 ♖d6+ ♔b7 9 ♖xa6 ♔xa6 10 ♗xa4 wins easily enough.

7 ♖d5+ ♔b6 8 ♖b5+ ♔c7 9 ♖c5+ ♔d8

The last three moves of smooth (forced) play set up a final, brief passage at arms. White attacked the knight so Black has countered by attacking the bishop.

10 ♗b5

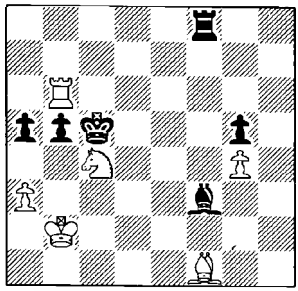
Attacks the rook on a6 too. No good now is 10...♖h6+ 11 ♔g7 ♖h3 12 ♖xc4 and White wins since the c-pawn is defended. Black instead counters with a pin:

10...♖a5 11 ♖d5+

Unpins with check. White wins after 12 ♗xc4, e.g. 11...♔c7 12 ♗xc4 ♖a3 13 ♖d3.

The central paradoxical idea is the stalemate defence by Black (6 d8♕? stalemate). The play leading to that crescendo is turbulent but there is an unusual amount of smooth flow in the fading out phase (moves 6 to 12). It is always harder to solve studies where both sides make brilliant moves, but it should be no harder simply to appreciate the play.

In our final illustrative study by the friendly Israeli composer, Yochanan Afek, you will again witness powerful counter-punching from both White and Black. Of course, White lands the final punch, and it is a knockout blow!



5.5 Win FPG

Yochanan Afek, 2nd Prize
Tidskrift för Schack 1972

White is a piece up but has to deal with the threat to his knight.

1 ♖xb5+

The natural move 1 ♘e5? fails to 1...♔xb6 2 ♘d7+ ♔c6 3 ♘xf8 ♗xg4 with sufficient counterplay for the draw (the threat is 4...♗d1 followed by 5...b4 and also 4...♗f5 dominating the knight). White's solution is more violent.

1...♔xb5

Otherwise Black is losing on material.

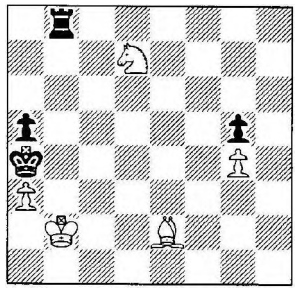
2 ♘e5+ ♔a4

No choice as alternative squares fail to 3 ♘d7+ and 4 ♘xf8 winning (this time Black is without the b5-pawn). Almost dominated, the black king is forced to the side.

3 ♘d7!

Threatening two sudden mates and seemingly decisive. There now follows a violent 'passage at arms' as Black hits back with a sacrificial 'stalemate attack'.

3...♗e2! 4 ♗xe2 ♖b8+!



5 ♗b5+!!

Not 5 ♘xb8 stalemate. If now 5...♔xb5, then 6 ♘xb8 wins, so Black must take the bishop with his rook.

5...♖xb5+ 6 ♔a2!

Zugzwang! This final paradoxical twist, as an apparently mobile rook is dominated by a mere knight, decides the issue.

Competitive Chess

Somewhat different criteria apply to games than to studies. In a forty move game you could hardly expect all the winning side's moves to be unique, only moves to win, while all the losing side's moves were demonstrably forced! Given the starting position is probably drawn, this would be logically impossible anyway. The criteria for a sound study have to be relaxed when applied to the game. For a phase of a game to be described as flowing, the moves need not be forced but should be logical, or, at the very least, plausible.

Even blunders need not totally ruin a game. Unsound play is not necessarily

unaesthetic, although it is a fairly serious detraction. A beautiful move should be a correct move, ideally, although earlier incorrect moves may be forgiven in the overall context of the game.

Flow and Technique

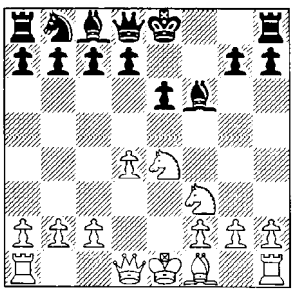
Good technique, or the winning of won positions, is often characterized by smooth flow. Often there is no need for deep, subtle moves or tricky tactical nuances, although being alert to such possibilities is the best approach, since the game might be wrapped up more efficiently. Winning by the steady implementation of a twenty-move plan is very impressive, but far less so if you overlook an instant tactical win.

The first game is a famous miniature played in London, 1912.

5.6 Ed.Lasker-Sir George Thomas

London 1912

1 d4 f5 2 ♘f3 e6 3 ♘c3 ♘f6 4 ♗g5 ♗e7 5 ♗xf6 ♗xf6 6 e4 fxe4 7 ♘xe4



7...b6

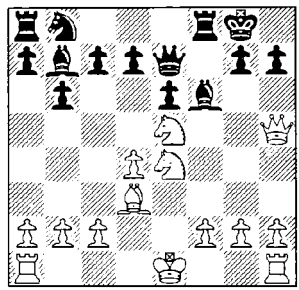
Although not obviously wrong, this move seems to lead to trouble. Earlier, 3...d5! might have been best, and now 7...0-0 8 ♗d3 ♘c6 was to be preferred. One of the striking things about this game is that Black's play seems reasonable and yet he is mated in eighteen moves.

8 ♗d3 ♗b7 9 ♘e5 0-0?!

After this Black is in mortal danger.

10 ♕h5 ♕e7?

Looks best, preparing to meet 11 ♘xf6+ with 11...gxf6! defending h7.

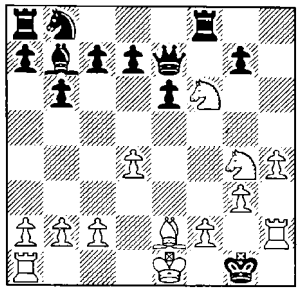


However it leads to a brilliancy by White. More stubborn was 10...g6 11 ♘xg6 hxg6 (11...♕e8 12 ♘xf8! ♕xh5 13 ♘xf6+) 12 ♕xg6+ ♗g7 13 h4 (13 ♘g5 ♖f6!) with a dangerous attack, probably winning once the king's rook gets in on the act. The next move is both deep and paradoxical, but it is not just this move that makes the game stand out. The king is hunted from g8 to g1 in a wonderful flowing sequence. The stakes are high, White having sacrificed a whole queen, and only the final mate resolves the tension which hangs in the air for a full eight moves.

11 ♕xh7+!! ♔xh7 12 ♘xf6++ ♔h6

12...♔h8 allows mate in one with 13 ♘g6.

13 ♘eg4+ ♔g5 14 h4+ ♔f4 15 g3+ ♔f3 16 ♗e2+ ♔g2 17 ♖h2+ ♔g1



18 ♔d2 Mate

Some might have preferred 18 0-0-0 mate! A beautiful game, even if rather brief.

The second game shows less forcing play and has a completely different sort of appeal. It is a long game, smoothly played by Karpov in all its phases. The endgame is especially attractive. This quickplay game decided the Tilburg knockout tournament of 1993, with a great deal of prize money resting on the result.

5.7 V.Ivanchuk-A.Karpov

Tilburg (rapid) 1993

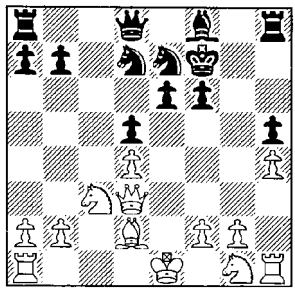
1 e4 c6 2 d4 d5 3 e5 ♗f5 4 h4 h5

A standard error here would have been 4...e6?? 5 g4 ♗e4 6 f3 ♗g6 7 h5 trapping the bishop.

5 c4 e6 6 ♘c3 ♘d7 7 cxd5 cxd5 8 ♗d3 ♗xd3 9 ♕xd3 ♘e7 10 ♗g5 f6

Karpov has judged that White cannot exploit the slight weakening created by this move.

11 exf6 gxf6 12 ♗d2 ♔f7!



Good judgement again. Disregarding the orthodox principles about castling into safety, Karpov simply places his king on what is probably its safest square.

13 ♘ge2 ♘g6! 14 g3?!

Perhaps White should interpret the position more aggressively with a double-edged move such as 14 0-0-0!?. In the next few moves he drifts into a passive endgame.

14...♗d6 15 ♘b5 ♗b8 16 ♗b4 a6 17 ♘d6+ ♗xd6 18 ♗xd6 ♕b6 19 ♗a3 ♕a5+ 20 ♕d2 ♕xd2+ 21 ♔xd2 ♖ac8

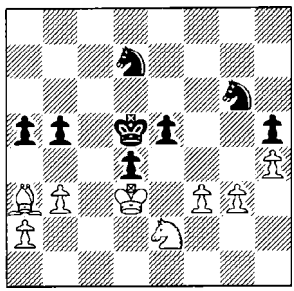
At first glance it appears that White has a weak isolated d-pawn, but in fact Black cannot get at it (so it should not be described as weak). Instead Black exchanges it off in order to gain space and advance his centre pawns. At this stage it is not clear that Black has anything more than a slight edge.

22 ♖hc1 e5! 23 b3 ♔e6 24 dxe5 fxe5 25 ♖xc8 ♖xc8 26 ♖c1 ♖xc1 27 ♗xc1

Neither side could cede the c-file, so

all the rooks have come off. Now Black cramps White further.

27...d4! 28 f3 ♔d5 29 ♗a3 a5 30 ♔d3 b5

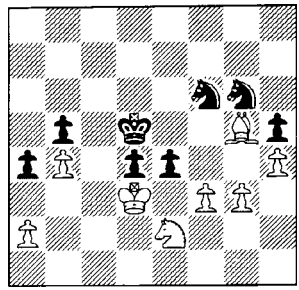


Threatening ...b4 followed by ...♘c5+. White decides to keep control of the c5-square, but to do this he has to obstruct his own bishop and weaken the c4-square. Over the last few moves, without doing anything violent and probably without needing to calculate any variations, Black has smoothly increased the size of his advantage. Smooth, flowing, positional play – always cramping and restricting his opponent – vintage Karpov! Unlike Kasparov, whose play often involves deep/complex or dynamic/tactical ideas, Karpov's moves often seem deceptively easy to understand. Both of the great Ks play aesthetic chess, but in different ways: Karpov's play has more flow, while Kasparov makes more use of violent, paradoxical moves. Kasparov is often the more spectacular player but we certainly enjoy Karpov's games just as much.

31 b4 a4!

Increasing his winning chances by keeping pawns on the board.

32 ♗c1 ♘f6 33 ♗g5 e4+!



A beautiful, geometrical knight pirouette is about to follow. The sacrifice of the d-pawn is only temporary. In fact White's last chance was not to take it.

34 fxe4+ ♘xe4 35 ♘xd4?

A controversial error. Karpov, annotating this game for *New In Chess* magazine, claims simply that 'All other moves are bad, e.g. 35 ♗f4 ♘f2+ 36 ♔d2 ♔e4'. However Van der Wiel claims a draw for White with 35 ♘f4+ ♘xf4+ 36 gxf4! (36 ♗xf4 ♘f2+ 37 ♔e2 ♘g4 38 ♔d3 ♘e5+ and White must give ground since the pawn ending is lost). The critical line seems to be 36...♘c3, when 37 f5! (37 a3? ♘b1 38 f5 ♘xa3 39 f6 ♘c1 40 f7 ♘e5+!) 37...♘xa2 38 ♗d2! ♘c3 39 f6 ♔e6 40 ♔xd4 ♘e2+ 41 ♔e3 ♘g3 42 ♔f4 should hold. Brilliant play by Karpov, but not such impressive notes! Aesthetically it does not detract from the game that, at this stage, a series of 'only' moves could save White. Karpov outplayed his opponent and got the advantage – but not yet a deci-

sive one. Unless the current analysis is overturned, one must conclude that the position only becomes lost after 35 ♘xd4?. In studies everything should be 'black and white', but in games you get almost the whole spectrum.

35...♘e5+ 36 ♔e3 ♘g4+ 37 ♔d3 ♘gf2+ 38 ♔e3

Black wins after 38 ♔e2 ♔xd4 39 ♗e3+ ♔c3 40 ♗xf2 ♔xb4.

38...♘d1+ 39 ♔e2

White must give ground. 39 ♔d3? ♘ef2+ 40 ♔e2 ♔xd4 41 g4 hxg4 42 h5 ♘e4! is hopeless.

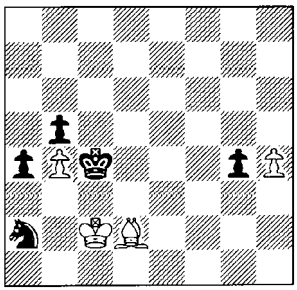
39...♔xd4 40 ♗xd1 ♘c3+!

In the final phase Karpov calculates accurately. 40...♘xg3? gives a pleasant advantage but maybe no forced win.

41 ♔c2 ♘xa2 42 ♗d2 ♔c4 43 g4

The best chance; waiting just makes it worse: 43 ♗e1 a3 44 ♗d2 ♘xb4+ 45 ♗xb4 ♔xb4 46 g4 hxg4 leaves Black with an easy win.

43...hxg4



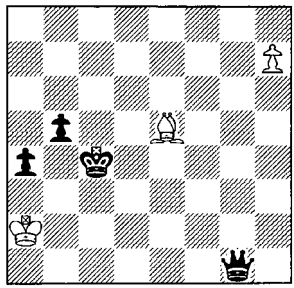
44 ♗b2

A critical variation, which Karpov must have seen before playing 40...♘c3+, runs 44 h5 g3 (one cute pitfall runs 44...♘xb4+? 45 ♗xb4 ♔xb4 46 h6 g3 47 h7 g2 48 h8♕ g1♕ 49 ♕c3#) 45 h6 g2 46 ♗e3 ♘xb4+ 47 ♔d2 ♘d5 48 h7 (48 ♗f2 ♘f6) 48...♘xe3 49 h8♕ g1♕.

44...♘xb4 45 h5 ♘d3+ 46 ♗a2 g3

Apparently falling into a trap, but probably Karpov had seen the finish and decided to wrap up in style rather than simply retreating the knight to cover the h-pawn (46...♘e5 wins easily enough).

47 h6 ♘e5 48 ♗f4 g2 49 ♗xe5 g1♕ 50 h7

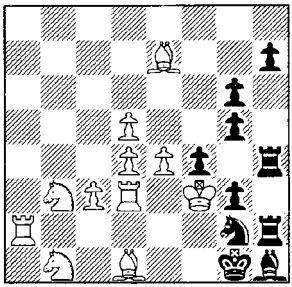


Remarkably enough, the queen cannot stop the h-pawn. The bishop controls h2 and 50...♕g2+ 51 ♗b2 forces Black to play 51...a3! if he wants to win. Karpov chooses a more sparkling finish.

50...b4! 51 h8♕ b3+ 52 ♔a3 ♕c5+ 0-1

Mate is forced. A truly marvellous game by Karpov, and even more impressive when one bears in mind the competitive significance and the speed of play (although these do not affect the 'objective beauty' of the moves). Ivanchuk joined the audience to applaud his opponent's victory!

Now we move from the high profile, big money world of top-class grandmaster chess, to the pure and relatively obscure world of the series helpstalemate! We hope you are not put off by the definition of the problem, since it is a personal favourite (of JL). A classic of modern chess composition, it is in many ways a perfect problem.



5.8 SH=153 FG(P)(D)
Markus Ott
Prize, Feenschach 1980

The stipulation is 'series helpstalemate in 153'. What, exactly, does this mean?

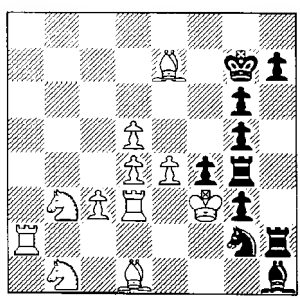
You have to find a sequence of 153 Black moves in a row (without giving or walking into check; White not moving) so as to reach a position where White can make one move, stalemating Black.

Since Black is making all the moves, his pieces will remain on the board. So in order to be stalemated, Black must immobilize his own men. This is in fact quite easy. Play the moves 1 ♖g4, 2 ♖h3, 3 ♔h2, 4 h5 and 5 h4 and you have almost done it. The knight on g2 is pinned and so the only move available to Black in this position would be 6 ♔g1. All White needs to do is control g1 and we are home. Presently no single move will do this; however if you imagine that White no longer has the pawn on d4, the move ♘c5 will do the trick.

But how can we get rid of the pawn on d4? It seems Black can do nothing since he is not allowed to check White. The knight must stay on g2, the bishop on h1 and the only black pawn that can move is the h-pawn (which can go no further than h4 for the final stalemate). This means the rooks cannot get out of the 'box' on the kingside. Only the black king remains for active service. However after 1 ♔f1 and 2 ♔e1 you can go no further.

At this stage you either give up or discover the mechanism by which the black king gets in and out of the kingside noose. We are now ready for the actual solution:

1 ♖g4 2 ♖h6 3 ♔h2 4 ♔h3 5 ♔h4 6 ♔h5 7 ♖h4 8 ♖h2 9 ♔h4 10 ♔h3 11 ♖h4 12 ♖g4 13 ♔h4 14 ♔h5 15 ♔h6 16 ♔g7



The king has escaped to the open country. What is the plan? Ultimately to capture the d4-pawn. Black must never capture the bishop on e7 or the rook on a2 since these pieces are needed for the final stalemate. First he must capture the rook on d3, then come back and take the bishop on d1, then the knight on b3, then the knight on b1 and finally he can get the pawn on c3 followed by his real target – the pawn on d4!

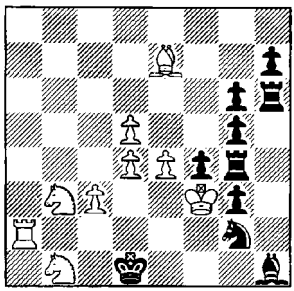
17 ♔f7 18 ♔e8 19 ♔d7 20 ♔c7 21 ♔b6 22 ♔b5 23 ♔c4 24 ♔xd3

Notice that at every stage, Black has only one move in order to achieve his purpose in the shortest possible time. There are never two ways to do it. For example, to get from c8 to c7 his majesty must go via d7, d8 being controlled by the bishop. This absence of 'duals' throughout the 153-move solution represents a phenomenal achievement by the composer. Now the rook on d3 is gone, Black must return for the bishop on d1 which is no longer protected. The king travels through the 'mechanism' in reverse gear:

The next moves are:

25 ♔c4 26 ♔b5 27 ♔b6 28 ♔c7 29 ♔d7 30 ♔e8 31 ♔f7 32 ♔g7 33 ♔h6 34 ♔h5 35 ♔h4 36 ♔h3 37 ♖h4 38 ♖h6 39 ♔h4 40 ♔h5 41 ♖h4 42 ♖g4 43 ♔h4 44 ♔h3 45 ♔h2 46 ♔g1 47 ♔f1 48 ♔e1 49 ♔xd1

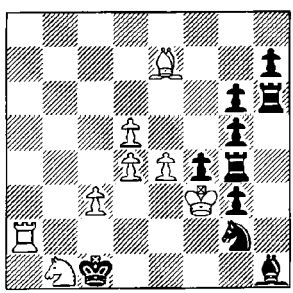
Black would like to continue to gobble up the knight on b1 as well but first he must go back for the path protector on b3 (which prevents access to the c1-square). The knight on b3 is no longer defended by the now deceased bishop on d1.



50 ♔e1 51 ♔f1 52 ♔g1 53 ♔h2 54 ♔h3 55 ♔h4 56 ♔h5 57 ♖h4 58 ♖h2 59 ♔h4 60 ♔h3 61 ♖h4 62 ♖g4 63 ♔h4 64 ♔h5 65 ♔h6 66 ♔g7 67 ♔f7 68 ♔e8 69 ♔d7 70 ♔c7 71 ♔b6 72 ♔b5 73 ♔c4 74 ♔xb3

And back again:

75 ♔c4 76 ♔b5 77 ♔b6 78 ♔c7 79 ♔d7 80 ♔e8 81 ♔f7 82 ♔g7 83 ♔h6 84 ♔h5 85 ♔h4 86 ♔h3 87 ♖h4 88 ♖h6 89 ♔h4 90 ♔h5 91 ♖h4 92 ♖g4 93 ♔h4 94 ♔h3 95 ♔h2 96 ♔g1 97 ♔f1 98 ♔e1 99 ♗d1 100 ♔c1



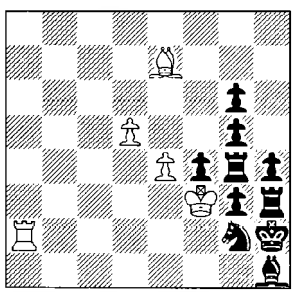
Not even Geoffrey Boycott could

reach a hundred as systematically as that. After taking the knight on b1, the c3-pawn loses its defence and then the d4-pawn can finally be taken.

101 ♗xb1 102 ♔c1 103 ♔d1 104 ♔e1 105 ♔f1 106 ♗g1 107 ♔h2 108 ♗h3 109 ♔h4 110 ♔h5 111 ♖h4 112 ♖h2 113 ♔h4 114 ♔h3 115 ♖h4 116 ♖g4 117 ♔h4 118 ♔h5 119 ♗h6 120 ♔g7 121 ♔f7 122 ♔e8 123 ♔d7 124 ♗c7 125 ♔b6 126 ♗b5 127 ♔c4 128 ♗xc3 129 ♔xd4

At last! Even now the road home is precise. After 130 ♔e5? you have to retreat again, losing two moves. The final twenty five moves should come as no surprise:

130 ♔c4 131 ♔b5 132 ♗b6 133 ♔c7 134 ♔d7 135 ♔e8 136 ♔f7 137 ♗g7 138 ♗h6 139 ♔h5 140 ♗h4 141 ♔h3 142 ♖h4 143 ♖h6 144 ♗h4 145 ♗h5 146 ♖h4 147 ♖g4 148 ♗h4 149 ♗h3 150 ♔h2 151 ♖h3 152 h5 153 h4



White now plays ♗**c5** and it is all over bar the counting!

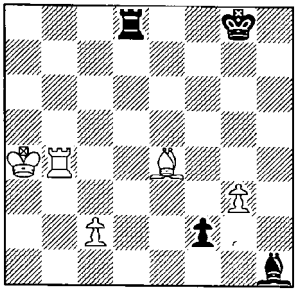
There is some paradox in this problem (the way the mechanism works; at first it seems impossible) and some geometry in the back and forth repetitions (as well as in the working of the mechanism itself). Of course, the whole concept is deep – 153 moves deep – but there is no single move in the sequence which could be described as subtle or deep according to our meaning of the term. What is truly astonishing about the problem is the flow of the solution. 153 'only' moves following a clear plan without a single side variation! The tension created is large because the solution is so long, even if the depth at any moment is not that great ('area of tension' = length x depth). Notice the economy: the a2-rook, e7-bishop and the pawns on e4 and d5 force a precise, dual-free, route of the black king. The start position is striking, with the black and white forces unusually separated. The systematic, stage-by-stage progress of the solution also pleases. All in all a fantastic achievement by the Swiss composer. Perhaps series problems are an acquired taste, but even so, most people who see this position seem to know instinctively that it is something very special.

'Flow' studies can be enjoyable even without major paradox or depth. The following is essentially one long combination, dependent almost entirely on flow for its aesthetic quality.

(see following diagram)

1 ♗d5+

1 ♗h7+ ♔h8 2 ♖f4 (2 ♗d3 ♗c6+ followed by 3...♖xd3 destroys White's defence) 2...♖d4+ and Black wins.



5.9 Draw F

E.Janosi, 2nd Prize
Schach-Echo 1988

1...♗xd5

Contrary to my computer's original opinion 1...♖xd5 is a clear draw: 2 ♖g4+ ♔h7 3 ♖h4+ ♔g6 4 ♖xh1 ♖f5 5 ♖f1 ♔g5 6 c4 ♔g4 7 c5 ♔xg3 8 ♔b5! (and not 8 c6? ♖c5!) 8...♔g2 9 ♖xf2+ ♔xf2 10 ♔b6.

2 ♖g4+! ♔h7 3 ♖h4+ ♔g6 4 ♖g4+

At first it may seem a little strange to lure the black king forwards (normally it is not a good idea) but here there are two reasons for this. The first is that it avoids the tactical trick 4 ♖f4? ♖f8! 5 ♖xf8 ♗f7 and the second is that it sets up the final combination in that White's thirteenth move (see main line) comes with check. The study would have had a 'D' for depth if that had been the sole purpose of White playing 4 ♖g4+, but the presence of the tactical trick line means that White must play this way. The judge of the study (Virgil Nestorescu) may have missed this point since he wrote 'An elegant study based on a cleverly hidden idea: the decoy of BK to g5 with an eye to the final combination.'

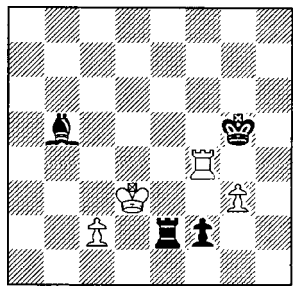
4...♔h5 5 ♖h4+ ♔g5 6 ♖f4 ♗c6+

Your computer may want to play 6...♗f3 7 ♖xf3 ♖d2, thinking it is a win, but it is entirely drawn after 8 c4 ♔g4 9 ♖f8 ♔xg3 10 ♔b5 (10 c5? ♖d4+ 11 ♔b5 ♖f4!) 10...♖d3 11 ♖xf2 ♔xf2 12 c5.

7 ♗b3 ♖d2

7...♗a4+ 8 ♔c3 ♖c8+ 9 ♔d2 ♖xc2+ 10 ♔e3 wins the pawn and draws.

8 ♔c3 ♖e2 9 ♔d3 ♗b5+



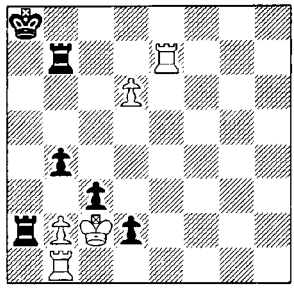
10 c4! ♗xc4+ 11 ♔xc4 ♖e4+ 12 ♗d3 ♖xf4 13 gxf4+ ♗xf4

As pointed out earlier, Black is in check after White's thirteenth move and thus cannot promote his pawn.

14 ♔e2 ♔g3 15 ♔f1

Giving Black the familiar choice between stalemate and losing his pawn. Either way it is an immediate draw.

It is interesting to compare a study like the above (with flow as the major aesthetic component) to one like the following, where the aesthetic impact is chiefly supplied by one dazzling, paradoxical move:

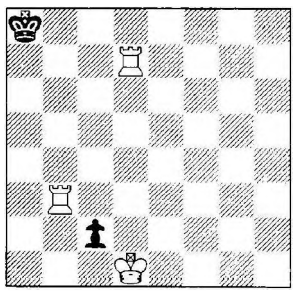


5.10 Win P(G)
D.Gurgenidze
HM, The Problemist 2000

1 d7 ♖xb2+ 2 ♖xb2 b3+ 3 ♖xb3 d1♕+!

Black is allowed to be brilliant too. Here the defender tries to set up a surprise stalemate.

4 ♔xd1 ♖xd7+ 5 ♖xd7 c2+



This study is all about setting up the next, brilliant move:

6 ♔e1!!

Allowing Black to queen with check! Blocking or taking the pawn is immediate stalemate while 6 ♔e2? c1♘+? 7 ♔d1 ♘xb3 8 ♖d5 ♔b7 (8...♔a7 9 ♔c2 ♘a1+ 10 ♔b2 traps the knight) 9 ♖b5+ wins, but Black can draw by simply promoting to a queen in this variation.

6...c1♕+ 7 ♖d1

The queen is 'dominated' by the rooks and the threat of ♖a1 mate. Apparently Jon Speelman (judging this competition) would have given this First Prize but it turned out to have been anticipated to some degree (the final theme of the study was not entirely original). While such anticipation does detract from the achievement of the composer, it does not detract from the aesthetic quality of the given study.

Comparing the last two studies, in the first we had flow without much else and in the second we had paradox without much supporting it. Which the reader prefers is a matter of taste: do you like elegant and flowing or spectacular and brief?

Part Three

Sampling the Spectacular

We have now finished introducing our four elements. Each has received its own chapter and we hope the reader already has a good, intuitive understanding of what we mean by them.

In the final part of the book, we are going to survey the aesthetic sides of chess one by one; starting with the game, moving on to the study and concluding with problems. Each field, or genre, has its own distinctive flavour, but, as we will demonstrate, the four basic elements can be usefully applied to all of them.

Chapter Six

The Poetry of War: The Aesthetics of Practical Play

'War is the father of all.'
Heraclitus

'Competitions are for horses, not artists.'
Béla Bartók

'Unfortunately – and this is part of the tragedy of the genuine chess artist – it takes two players to create one chess masterpiece.'
Alexander Alekhine

It is well known that many players do not have much time for studies and problems. It is less well known that there are some problemists who do not have much time for the practical game! They argue that the game is over-competitive and lacks the purity and beauty found in composition. Why bother playing chess when the prettiest ideas are found in studies?

For competitive players it is impractical to approach the game positively trying, or expecting, to play beautiful chess. The objective is to win, and beauty – if there is any – is merely a side product. Judging only by artistic criteria, it is difficult to argue with our 'game-hostile' problemist friends. However, in order to appreciate chess (the game) fully, one has to see it in a sporting context. It is just plain unrealistic to expect the same artistic standards from both the competitive game and composition. Anything achieved under the strain of over-the-board conditions, in the midst of the 'fog of war' is that much more impressive. Naturally, in purely chess terms, greater things can be done in the privacy of one's study (no pun intended). Just

think of the advantages: all the time in the world, moving pieces around while analysing, putting them wherever you like to begin with, removing any piece you want to... To criticize a game 'because the pawn on h2 played no relevant part' is absurd. It is almost like expecting a great painter to produce a masterpiece while simultaneously warding off an angry Mike Tyson!

Once you make allowance for such limitations, there is a great deal to appreciate, aesthetically, in competitive chess. Our four elements (paradox, geometry, depth and flow) apply mainly to 'episodes' – pieces of chess action. But a whole game can consist of several phases, each comprising one or more such episodes. Complete games can be symphonic in nature, and this can lead to much disagreement over the beauty involved. While there might be agreement over the aesthetic quality of a single episode, once you put several of these together players start to disagree about the value of the whole.

For example, should 'brilliancy' (usually a relatively crisp, short game involving spectacular sacrificial play) be emphasized or should prizes go to 'best games' (usually longer, quality games not necessarily involving any brilliancy)? Returning to the flow chapter, do you prefer Lasker-Thomas (a brilliancy) or Ivanchuk-Karpov (a best game)? To some extent it is a question of temperament and whether you prefer paradox to depth and flow.

In recent years *Chess Informant* has regularly had a panel of leading players trying to decide which game was the best of the preceding volume. Disagreement is typical and rife. Usually several players give zero to the winning game and several give '10'. This is not so surprising since the criteria for judging games are not well developed. In chess, unlike in art, correctness – and the ability to perceive it – comes before any further commentary. This means any serious critic must be a strong player, but strong players rarely make good critics! Usually they are competitive, somewhat secretive about their taste, with strong egos to protect and a tendency to look mainly at their own games rather than those of others. For all of these reasons the art of chess criticism has not really come a long way.

So different players like different aspects of beautiful games. It is limiting to give absolute criteria, and players often cannot say in advance what appeals to them most about a game of chess. Maybe a single tactical move, or a new strategic plan, or a psychological aspect or simply the good timing of moves. What is clear though, is that players do find certain games very attractive. Julian Hodgson once related that games he liked had a certain 'something' about them, a quality he could not really specify. Typically, players have an holistic approach: looking at the whole game as an entity before making any judgement.

Our four elements are designed to help us discuss the beauty of the moves themselves; but competitive chess in-

volves several other factors which can affect aesthetic judgement. Among these more 'subjective' factors are:

1) Originality.

2) Intentionality. For example, how aesthetic is it if a player blunders a rook, but it subsequently turns out to be a brilliant move, winning despite the oversight. Such unintentional brilliancies occur more frequently than one might imagine. The reaction of players to such instances is more typically 'My word! That was lucky!' rather than 'How beautiful.'

3) Strength of opponent, and competitive significance. According to Kasparov, 'The value of any brilliantly won game increases in accordance with the strength of the opponent.'

4) How much of it was opening preparation? Brilliant play at the board (in the midst of the fog of war), is generally considered more impressive than clever preparation, however brilliant.

5) Blunders. Is a tabulous game, full of originality, profound conceptions and stunning ideas, but which is slightly ruined by a blunder near the end (which might reverse the result), to be considered less aesthetic than an unspoilt game of lesser brilliance?

It is difficult to be definitive on any of these issues. Even in the world of composition, the moves alone are not the sole determinants of aesthetic quality (originality is an important consideration there, too); but in the game as played, as indicated above, 'other factors' are very important. Still, the objective chess content (the moves alone) should remain the primary consideration!

In this chapter we will survey the potential for beauty in the three phases of the game (opening, middlegame, ending). There will be some exercises for readers to test their own ability and eye for the spectacular and finally there will be a selection of complete games. We make no claim that these are the best or most brilliant masterpieces ever played, but they will all be terrific games with which, hopefully, the reader will not be over-familiar. Anderssen-Kieseritzky will not be there, and that's a promise!

Beauty in the Opening

Just before civil war and strife erupted in Sarajevo, Jan Timman played a Candidates Match there against Robert Hübner. The highlight of the match was the following game where Timman wins due to his original and unorthodox handling of the opening:

6.1 J.Timman-R.Hübner

Candidates (Game 3), Sarajevo 1991

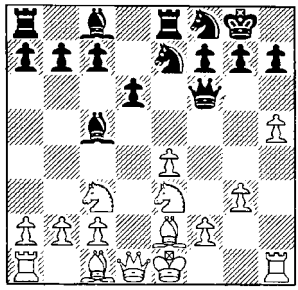
1 e4 e5 2 ♘f3 ♘c6 3 d4 exd4 4 ♘xd4 ♗c5 5 ♘f5

Kasparov continued with 5 ♘xc6 ♕f6 6 ♕d2 twice against Nigel Short during their 1993 PCA World Championship Match. Instead, Timman breaks an old rule about not moving the same piece more often than is strictly necessary in the opening. He spends four moves sending it from g1 to e3.

5...♕f6 6 ♘c3 ♘ge7 7 ♘e3 0-0 8 ♗d3

A new move. Despite Black's development lead, White's grip on d5 probably secures the better prospects.

8...♘e5 9 ♗e2 ♘5g6 10 g3 d6 11 h4! ♖e8 12 h5 ♘f8



13 ♖h4!

An unorthodox deployment of the rook so early in the game. From h4 it controls important central squares and cannot easily be attacked.

13...c6?!

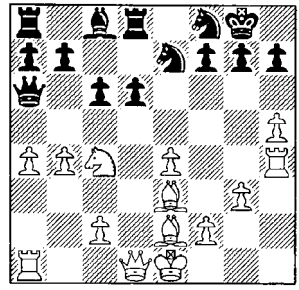
Better was 13...a6. Still not bothering to develop his bishop on c1, White now decentralizes his knight. White is breaking a lot of rules, advancing on the flank, leaving his king in the centre, and yet he already has a serious advantage!

14 ♘a4! ♕d4 15 ♘xc5 ♕xc5?

The best chance was 15...dxc5 16 ♘c4 when White has a clear advantage. Black is now lost since his queen is about to be trapped.

16 ♘c4 ♖d8 17 ♗e3 ♕b5 18 a4! ♕a6 19 b4!

Controlling a5 and thus threatening 20 ♘b6. If 19...b5, then 20 ♘xd6 with axb5 to come.



19...d5 20 ♘b6 ♕xb6 21 ♗xb6 axb6 22 exd5 ♘f5 23 ♖f4 ♖xd5

With two knights against the queen, Black is materially lost. The knights seem to hold the balance for a while, but the end result is inevitable:

24 ♗d3 g6 25 hxg6 hxg6 26 ♖e4 ♗e6 27 ♕d2 ♘d4 28 ♕c3 c5 29 bxc5 bxc5 30 ♗c4 ♖h5 31 ♗xe6 ♘fxe6 32 ♖h4 ♖f5 33 ♔f1 ♖f3 34 ♕b2 ♖e8 35 ♖e1 ♖e7 36 a5 ♖d7 37 ♔g2 ♖f5 38 ♖eh1 ♘g5 39 a6 b5 40 c3 ♘df3 41 ♖f4 1-0

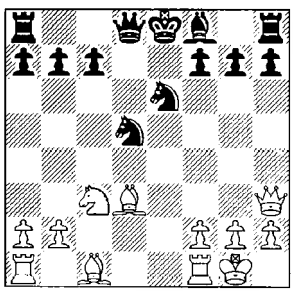
This game would probably be better known if Hübner had resigned on move twenty. Very striking and effective play by Timman. Hübner's moves were plausible enough, which is important aesthetically to the effect of the game. We particularly like the way White flouts one principle after another and yet wins effortlessly. Essentially, this is paradox at work, since preconception and instinct are being shown up. The queen domination is pleasant enough but poor compared to what can be seen in studies.

The necessity to develop one's pieces makes it harder to find strongly

paradoxical moves in the opening. When they do come, the effect can be all the stronger if they come as novelties in known positions.

The move 11...♔e7 played by Karpov against Kamsky (Dortmund 1993) – see the Paradox chapter – is a good instance of this. Paradox and novelty together create an exciting stir.

A curious 'double novelty' was recently unearthed by correspondence players. After the moves **1 e4 e5 2 ♘f3 ♘f6 3 ♘xe5 d6 4 ♘f3 ♘xe4 5 d4 d5 6 ♗d3 ♘c6 7 0-0 ♗g4 8 c4 ♘f6 9 ♘c3 ♗xf3 10 ♕xf3 ♘xd4 11 ♕h3** (in the fifteenth game of their world championship match in Moscow 1985, Kasparov played 11 ♖e1+ against Karpov) **11...♘e6 12 cxd5 ♘xd5** *(6.2)* we arrive at the point of departure.



6.2 White to play

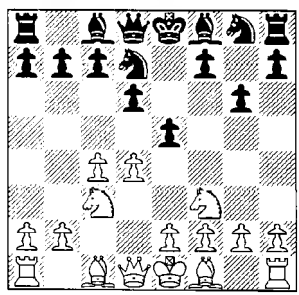
James Howell played the normal enough 13 ♖e1 against Van Kemenade in 1991 (see *Chess Informant 52*, Game 301). White got nothing and lost the game. The two new moves are both paradoxical; the bishop on d3 can strike out in either direction:

a) **13 ♗b5+!!** looks rather pointless at first sight but Pletánek-Dufek, correspondence 1992, showed the point: 13...c6 14 ♖d1! cxb5 15 ♖xd5 with a dangerous attack.

b) **13 ♗g6!!** is a stunning move, which actually seems to work! Nadanian-Sarbatov, correspondence 1992, continued 13...♕d7 14 ♖e1 0-0-0 15 ♘xd5 hxg6 16 ♕xh8 ♗b4 17 ♕xd8+ ♕xd8 18 ♘xb4 a5 19 ♘c2 ♕d3 20 ♘a3 b5 21 ♗e3 b4 22 ♖ed1 ♕a6 23 ♘c2 and Black resigned. Detailed analysis of the two games, suggesting that White has a clear advantage after either novelty, can be found in *Chess Informant 58*, Game 336.

The following example, (shown to JL by Julian Hodgson) is quite sensational in its own way:

After the moves **1 d4 g6 2 c4 d6 3 ♘f3 ♘d7 4 ♘c3 e5** *(6.3)*,



6.3 White to play

the move **5 c5!!** is unusually effective. Such a move goes strongly against

instinct. It seems premature, non-developmental and the sort of move that ought to be no good at all. Julian Hodgson and I (JL) spent quite a while convincing ourselves that it really is a good move, since neither of us could believe it at first. Paradox is the aesthetic factor at work here.

How does Black respond? If 5...♗g7 (ignoring it), then 6 cxd6 cxd6 7 e4, and d6 is a weak point. 5...dxc5 6 dxe5 ♗g7 7 ♗g5 ♘e7? fails against 8 ♘d5. After 5...exd4 6 ♕xd4 ♕f6 7 ♘d5 ♕xd4 8 ♘xd4, White is better. A grandmaster game continued 5...♘gf6 6 cxd6 ♗xd6 7 e4, when White should be better due to the weakening of g7 and h6.

Having been impressed by this last idea, it was probably easier for Julian to find the stunning 6 c5! in the opening of his game with Lev Psakhis from Metz 1994: 1 c4 e5 2 ♘c3 ♗b4 3 g3 d6 4 ♗g2 ♗xc3 5 bxc3 f5 6 c5!. After 6...dxc5 7 ♗a3 ♕d6 8 d4 White went on to win a fine game in twenty more moves.

Some openings have been analysed extensively and deep moves involving a great deal of subtlety and refinement have been unearthed. In some of the sharper openings there are flowing tactical sequences, but impressive geometrical ideas are rare. (Geometry is generally more prominent in composition than in practical play.) Many players regard opening theory as a necessary evil, but there are those who seem to love it for its own sake. The former British Correspondence Champion, Peter Millican, probably knows as much about the Double Muzio as anybody else on the planet! He has studied it exhaustively and he singled out the following line as being especially beautiful, adding that he got the impression the rules of chess had been invented specially so as to make this line just work! Incidentally, to those assuming there is nothing of practical use in a book about aesthetics, we should point out that the final moves overturn an assessment in *ECO* given by Korchnoi (line C37), and it's not in the book *ECO Busted* either!

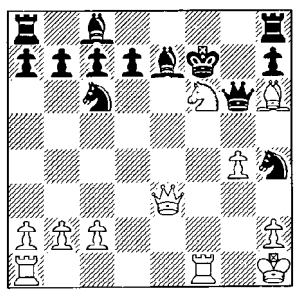
1 e4 e5 2 f4 exf4 3 ♘f3 g5 4 ♗c4 g4 5 0-0 gxf3 6 ♕xf3 ♕f6 7 e5 ♕xe5 8 ♗xf7+ ♔xf7 9 d4 ♕xd4+ 10 ♗e3 ♕f6 11 ♗xf4 ♘e7 12 ♘c3 ♘f5 13 ♘e4 ♕g6 14 g4 ♗e7 15 ♔h1 ♘h4 16 ♕e3 ♔g8

At this point *ECO* gives 17 ♗e5 b6!, but Millican gives the simple

17 ♗h6!

threatening 18 ♘f6+. The game P.Millican-N.Down, correspondence 1987, continued 17...♕e6 18 ♖f2 b6 19 ♖af1 ♘g6 20 ♕d4 and White forced mate. Another try for Black is:

17...♘c6 18 ♘f6+ ♔f7 *(6.4)*



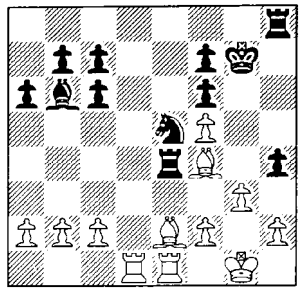
6.4 White to play

Now 19 ♘d5+ ♔e8! is not so clear, but the elegant **19 ♘g8+!!** wins at once. To use an old air force expression, I wouldn't touch either side of the Double Muzio with yours, but 19 ♘g8+ is still a lovely move. After 19...♔xg8 (19...♔e8 20 ♖f8#), 20 ♕xe7! wraps up.

Beauty in the Middlegame

The middlegame is the richest and most complex phase of the game where, unlike the opening, players are dependent entirely on their own resources and imagination. Hitting upon the right plan, finding your way in this maze of complexity can be enormously satisfying. To play a beautiful game usually means playing a beautiful middlegame, and all the games at the end of this chapter involve such beauty. GM Jan Smejkal, asked what he valued most in chess, replied 'the depth of a strategic idea'. Typically such ideas occur in the opening or middlegame (but not in the endgame, when the strategy is usually clear). Answering the same question GM Ivan Radulov replied 'the beauty of a sacrifice' – and that's what we will look at in this section. Sacrifices can occur in any phase of the game from gambits in the opening to the pure tactics of some endgames, but for practical players a talent for middlegame combinations is essential.

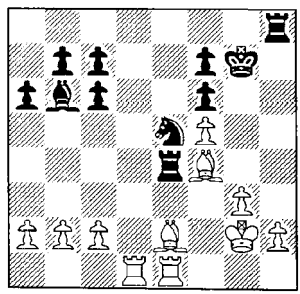
An intriguing episode took place in game seventeen of the 1993 PCA World Championship in London. Kasparov (White) is about to make his twenty-third move:



6.5 White to play
G.Kasparov-N.Short
PCA World Championship (Game 17), London 1993

23 ♔g2?! hxg3 24 fxg3

Missing Black's reply. Better was 24 ♗xg3 with a small advantage. After the game the World Champion was angry about this oversight since he had seen that Black was threatening 23...hxg3 and 24...♗xf2+ in the diagram position, but thought that 23 ♔g2 had prevented it. It is more difficult to see sacrifices on empty squares!



24...♗f2!!

A beautiful, paradoxical move. Black wins a pawn by force. Short wrote that he was 'delighted with this move'. The combination is four moves deep, but it was trapping Kasparov with such an aesthetic blow that so pleased Nigel.

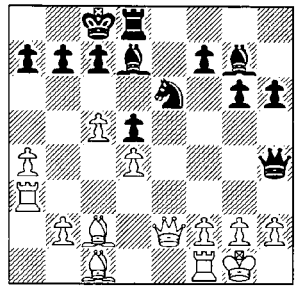
25 ♔xf2 ♖xh2+ 26 ♔f1 ♖exe2! 27 ♖xe2 ♖h1+ 28 ♔f2 ♖xd1

Unfortunately Black's 'advantage proved insufficient – Kasparov defended tenaciously to draw. Going back to the diagram position, is there no way White can defend against the combination? Of course, he can play 23 ♔g2 hxg3 24 ♗xg3 but White would like to maintain his pawn structure. The best way to do this seems to be the deep and paradoxical:

23 ♖c1!!

An extraordinary move, deactivating the rook. Neither the players nor any of the commentators have pointed out this possibility. The point is that after 23...hxg3 24 hxg3 ♗xf2+? 25 ♔xf2 ♖h2+ 26 ♔f1 ♖exe2 (26...♖h1+ 27 ♔g2 ♖xe2+ 28 ♔xh1) 27 ♖xe2 ♖h1+ 28 ♔g2 the rook on c1 is defended by the bishop. If instead 23...♖e8, 24 ♔f1! and Black has no useful attacking moves (e.g. 24...♗a5 25 c3 ♗b6 26 f3 ♖a4 27 a3 when Black has too many pawn weaknesses and no activity to compensate). 23 ♖c1 prepares 24 ♔g2 and 25 f3, and we see no good move for Black in reply. Had Kasparov played 23 ♖c1, he might have enjoyed it since the commentators would have been more than slightly baffled.

Another strongly paradoxical tactical blow was missed by Ivanchuk in his game against Rozentalis (Manila Olympiad 1992).



6.6 White to play

Ivanchuk played 16 ♕d1 but after 16...♘xd4 17 ♗b1 ♗g4 18 f3 ♗f5 Black had excellent compensation for the exchange and won in good style. Rozentalis, who annotated the game for *Chess Informant*, failed to mention the brilliant possibility (pointed out by Icelandic GM Petursson):

16 ♗xg6!!

After which Black does not get adequate play for the exchange in any of these lines:

a) 16...♘xd4 17 ♕h5.

b) 16...fxg6 17 c6! and now:

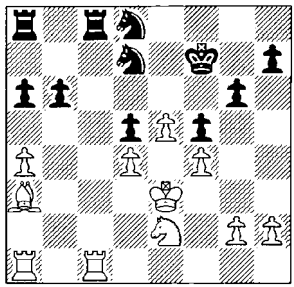
b1) Not 17...bxc6 18 ♕a6+ ♔b8 19 ♖b3+ and White mates.

b2) 17...♗xc6 18 ♕xe6+ ♔b8 19 ♕xg6.

b3) 17...♘xd4 18 cxd7+ ♔xd7 19 ♕d1.

The unexpected nature of the move 16 ♗xg6!! makes it very hard indeed to see.

The next three tactical combinations are left as exercises for the reader; the solutions are at the back of the book.



6.7 White to play
J.Levitt-A.Kveinys
Augsburg 1993/94

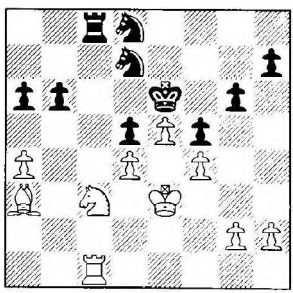
This game was played on New Year's Day 1994. I set the friendly Lithuanian grandmaster a trap:

27 ♖c3! ♖xc3+?!

The best continuation was to 'copy' with 27...♖c6!, which should hold.

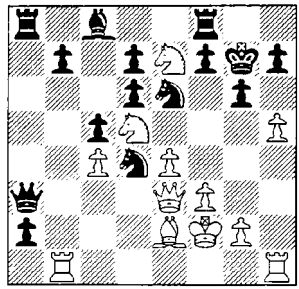
28 ♘xc3 ♔e6 29 ♖c1 ♖c8?

And now only the surprising 29...♘b8! hangs on.



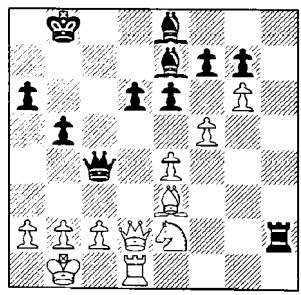
Exercise 6.7: What should White play next?

The second position, allegedly from a friendly game between two people named Schmidt, is a win for White after a brilliant sacrificial finish in the traditional style.



6.8 White to play
P.F.Schmidt-P.R.Schmidt
Heidelberg 1946

Exercise 6.8: Try to calculate (to mate) how White concludes his attack.

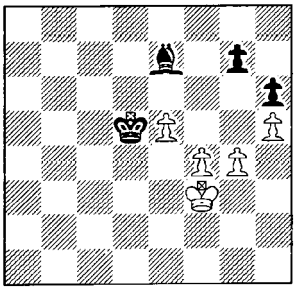


6.9 White to play
M.Tal-A.Koblencs
USSR 1976

Exercise 6.9: Tal (White, to play) was one of the great masters of the paradoxical tactical blow. Here his knight is attacked, but still he engineers a spectacular breakthrough. How?

Beauty in the Endgame

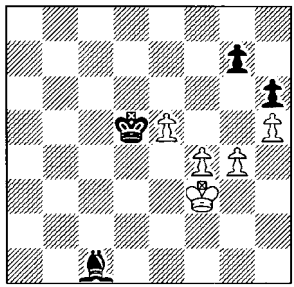
Although less complex, the purity and economy of form found in the endgame make it, in many ways, the most elegant and attractive phase of the game. The simplified material balance also gives rise far more often to long forcing sequences (flow). Indeed, the worlds of practical chess and composition merge in the endgame. The next chapter, on studies, will feature several endgame-like positions which might just as well have come from practical play (many endgame studies are based on real games). However, the necessity for a study to have a unique solution does exclude a number of real endings, full of twists and turns, such as the following:



6.10 White to play
J.Hodgson-A.Baburin
Neuchâtel 1993

White should force an immediate draw with 1 g5! hxg5 2 ♔g4! since 2...gxf4 3 h6! gxh6 4 ♔xf4 leaves Black with bishop and rook pawn of the wrong colour. Instead he played the casual:

1 ♔e3? ♗a3! 2 ♔f3 ♗c1



Now Julian sank into thought and found a very deep idea: 3 g5 hxg5 4 fxg5 ♗xg5 5 ♔g4 when:

a) 5...♗h6 6 ♔f5 draws (a position of mutual zugzwang – if 6...♔c6, 7 ♔e6 or 6...♗c1 7 ♔g6 ♗h6 8 ♔f5; White to move would lose).

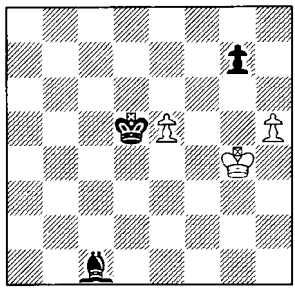
b) 5...♗c1 is answered by 6 h6!!, a beautiful, deep and paradoxical move. The point is that 6 ♔f5? ♗h6! gets to the mutual zugzwang above, only this time with White to play. Surprisingly White does not need his h-pawn. After 6 h6!! ♗xh6 7 ♔f5 it is still mutual zugzwang: 7...♗c1 8 ♔g6 ♗h6 9 ♔f5 ♔c6 10 ♔g6! or 7...g5 8 e6! ♔d6 9 ♔f6 g4 10 e7 ♗g5+! 11 ♔xg5 ♔xe7 12 ♔xg4.

A gorgeous variation. Life, however, can be full of disappointments; the game continued:

3 g5 hxg5 4 fxg5 ♗b2!

and Black is winning since 5 h6 g6 6 h7 ♗xe5 is no good at all. Also 5 g6 ♗c1 wins easily enough.

A very interesting endgame. To make a study out of it one would have to start with the position after 4...♗xg5 5 ♔g4 ♗c1?.



6.11 Draw P(D)(F)
J.Hodgson 1993

Solution: 1 h6! ♗xh6 2 ♔f5 g5 (sidelines as given above) 3 e6 ♔d6 4 ♔f6 g4 5 e7 ♗g5+ 6 ♔xg5 ♔xe7 7 ♔xg4. All of White's moves in this sequence are unique. Essentially this study was composed by Julian Hodgson in his analysis at the board! It is a worthy study with paradox, depth and flow.

We move now on to our selection of complete games.

Selected Games

The gulf between commonly held opinions and reality is sometimes quite astounding. Many people seem to regard Karpov as a boring player and it is easy to find examples of adverse comments: Timman in 1979 wrote: 'We must learn to live with Karpov as World Champion... [although] ...his games have even begun to show a little more colour'. Agur, while praising Fischer's aesthetic eye, describes Karpov as a player 'whom no one could possibly accuse of being aesthetically biased!' English grandmaster Danny King mischievously went so far as to call Karpov's style 'turgid' and 'ditch-water dull' in an article in *Chess Monthly* magazine (May 1994).

In reality Karpov plays beautiful chess. Looking at the five-year period before the first edition of this book (1990-95), in your authors' opinion he played a higher number of aesthetic games than any other player! There are a couple of reasons why; firstly, there is a correlation between beauty and truth in chess, which, more simply, means that strong moves are often beautiful. Secondly, the only player demonstrably stronger than Karpov during this time, Garry Kasparov, played far fewer games over the same period.

Apart from the fact he is very strong, why is Karpov's style aesthetic? Probably since his advantage over other top players is not based on calculation. His games often exhibit smooth flow with tension being created and released in a controlled fashion. His antithesis, Kasparov, is strong at all aspects of the game, but especially powerful as a calculator and logician (leading to disruptive paradoxical moves being the chief aesthetic element at work in his games). Karpov's strength is based on his superb strate-

gic handling as well as his early and subtle perceptions. In terms of our elements it can be said generally that positional players exhibit more flow, whereas tacticians generate more paradox (often of a sacrificial nature).

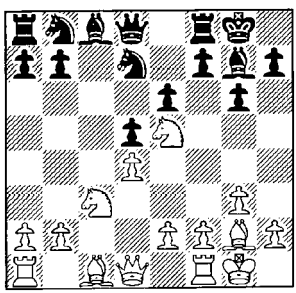
Earlier we saw a typical flowing Karpov game (against Ivanchuk). The next game was judged to be the best game of *Chess Informant 56*:

6.12 A.Karpov-G.Kamsky
Moscow 1992

1 d4 ♘f6 2 c4 g6 3 ♘f3 ♗g7 4 g3 c6 5 ♗g2 d5 6 cxd5

A further 'secret' of spectacular chess is that you are more likely to play a brilliant game if you pick a sharp, aggressive opening. Paradoxically enough, many of Karpov's most beautiful games come from a relatively quiet choice of opening!

6...cxd5 7 ♘c3 0-0 8 ♘e5 e6 9 0-0 ♘fd7



10 f4

A genuinely 'turgid' player would be more likely to relish the 'ditch-water dull' 10 ♘xd7.

10...♘c6 11 ♗e3 ♘b6 12 ♗f2 ♗d7 13 e4 ♘e7 14 ♘xd7 ♕xd7 15 e5 ♖ac8

A new move deviating from a game between the two 'K's. Kasparov played 15...♖fc8 against Karpov in Seville 1987. It is too complex to tell whether Kamsky, yet another 'K' (it is well known that a ridiculous number of top players' names begin with K), has actually improved with this move or not. Since he is about to double rooks, it may not make that much difference anyhow.

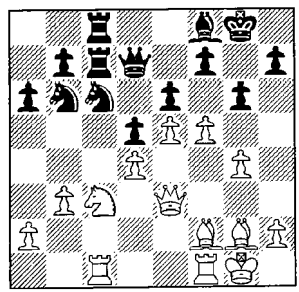
16 ♖c1 a6 17 b3

Weakens a3, but strengthens c4. The knight on b6 is being restricted. Karpov often finds ways to misplace his opponents' pieces, and unlike certain blitz hustlers, he does it legally!

17...♖c7 18 ♕d2 ♖fc8 19 g4 ♗f8 20 ♕e3!

A strong move based on one of those subtle Karpov perceptions. Rather than simplifying with a tiny edge (20 ♘e2) he uses the fact that his opponent has only one constructive move, and that has a drawback.

20...♘c6 21 f5



In moving to c6 the knight has 'come off' f5, allowing White this important pawn break. However, Black has the opportunity to take the f5-pawn and, given he is worse the way the game actually went, he probably should. After 21...exf5 22 gxf5 ♕xf5 White has the skewer 23 ♗h3.

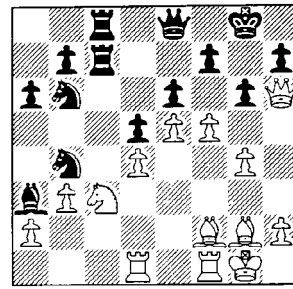
Annotating for *ChessBase Magazine*, Anand simply ended here, implying White was winning. Karpov himself, annotating for *Chess Informant*, goes further since Black can arrange an attractive reciprocal skewer against White's queen and rook: 23...♕h5! 24 ♗xc8 ♗h6 25 ♕h3 ♗xc1 26 ♕xh5 gxh5 27 ♗xb7 and Karpov assessed this as clearly better for White. However Karpov is a better player than writer and he too has stopped short (rather strangely in a position that has not yet reached quiescence). After 27...♗b2!, Black has no problems since the white bishop is dominated: 28 ♗xc6 (28 ♘d1 ♗xd4 29 ♗xc6 ♗xf2+) 28...♗xc3 29 ♗e8 ♔f8!.

Putting *Fritz* to work, it was discovered that White also has (after 21...exf5 22 gxf5 ♕xf5 23 ♗h3 ♕h5 24 ♗xc8 ♗h6) 25 ♕g3! with some advantage after 25...♗xc1 26 ♗xb7 ♕g5. Another idea is to sacrifice a pawn for the initiative with 23 ♘e2, which offers good chances for White. Despite Karpov's error in analysis, there is nothing wrong with 21 f5 and the game maintains its 'correctness' from White's point of view. Quite where Black goes wrong remains a mystery.

21...♗a3 22 ♖cd1 ♘b4 23 ♕h6!

Threatening mate in two by 24 f6.

23...♕e8



24 ♘b1!

Earlier in the book we discussed the geometrical and paradoxical properties of the 'switchback'. This game features an extraordinarily large number of White switchbacks. This paradoxical undevelopment of the knight is to inconvenience the black bishop on a3.

24...♗b2 25 ♕d2

Switchback number two. Black finds the right defence to the double attack, avoiding the trappy 25...a5? 26 a3! (26 ♕xb2?? ♖c2 27 ♕a3 ♖xa2 nets the queen) when 26...♘c2 allows 27 ♕xa5 and 26...♖c2 27 ♕e1 ♕b5 28 axb4! ♖e2 29 ♕xe2 ♕xe2 30 bxa5 ♘d7 31 ♖d2 shows White's queen 'offer' has been none too generous (rook and two bishops). Two attractive queen traps are hidden beneath the surface of the game here, one good and one bad for White.

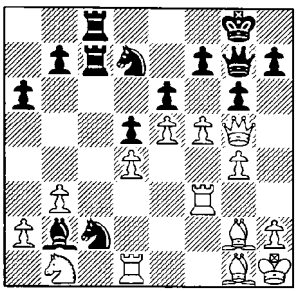
25...♘c2 26 ♔h1 ♕e7 27 ♗g1 ♘d7 28 ♖f3 ♕b4 29 ♕h6

Switchback number three, designed to pacify the black queen.

29...♕f8 30 ♕g5

Threatening 31 fxe6 when the black f-pawn is pinned. The black queen now gets bottled up on the kingside, but otherwise the white attack would be too dangerous.

30...♕g7



31 ♕d2!

Number four! Hypnotic and bewitching play. Black now advances on the queenside, mainly to control the b4-square and prepare an exit for the c2-knight.

31...b6 32 ♖df1 a5 33 h4 ♘b4

Not sacrificing the bishop, since the same queen trap as before is still operative. Kamsky defends imaginatively throughout the game, but nothing saves him.

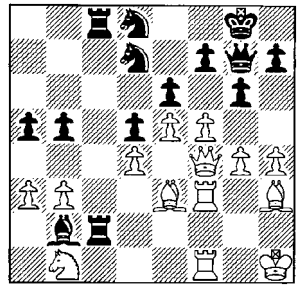
34 a3 ♖c2 35 ♕f4 ♘c6 36 ♗h3

Eyes the weakness on e6, which Black promptly defends.

36...♘d8 37 ♗e3!

Yet another switchback. Number five in fact and we are only counting Karpov's! White is about to make a strategic switch as well: from the kingside to the queenside. With the black queen passive and the bishop on b2 a target, this sets Black insoluble problems. Black has defended too well and now finds himself vulnerable where he was previously attacking!

37...b5



38 ♖3f2!

A move displaying his deep strategic grasp. White penetrates the queenside instead of the f-file. The bishop on b2 is threatened.

38...b4 39 axb4 axb4 40 ♖xc2 ♖xc2 41 ♖f2! ♖xf2 42 ♕xf2 ♗a3

After the alternative 42...♗c3 White plays 43 f6 ♕f8 44 ♕c2 ♗e1 45 h5. On a3 the bishop is defended securely, but stranded.

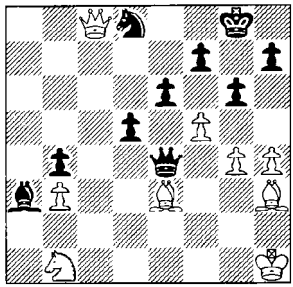
43 ♕c2 ♘xe5

43...♕f8 44 ♕c7 leaves Black completely tied down. Karpov is not a man you want sitting on you, so Black gets desperate in a bid to randomize the game. 43...gxf5 loses to 44 ♕c8!.

44 dxe5 ♕xe5

It is important for White to punch home his advantage incisively, and not to go passive with his extra piece. Karpov finishes energetically:

45 ♕c8! ♕e4+



46 ♗g2!

Switchback number six, but who's counting?

46...♕xb1+ 47 ♔h2 ♗b2 48 ♕xd8+ ♔g7 49 f6+! ♗xf6 50 ♗h6+! ♔xh6 51 ♕xf6 ♕c2 52 g5+ ♔h5 53 ♔g3!

Another secret of spectacular chess is not to mess it up right at the end. This neat little side-step avoids 53 ♔h3? ♕f5+ and wraps up a flowing final stage.

53...♕c7+ 54 ♔h3 1-0

A great achievement by Karpov. This game is strong on geometry (the second stage of each switchback may be seen as a reflection of the first stage in an appropriately placed mirror). There is also paradox in the back and forth movements involved. With strategic depth as well as a number of subtle touches (20 ♕e3!, 24 ♘b1!, 38 ♖3f2!, 49 f6+! and 53 ♔g3!) and also a little flow towards the end, this game seems very complete. It will perhaps become known as the 'Switchback Game'.

6.13 B.Spassky-T.Petrosian

World Ch. (Game 7), Moscow 1966

In the year that England won the World Cup, Petrosian successfully defended his world title against Spassky. A key victory in that tight match was the flowing positional masterpiece that follows.

1 d4 ♘f6 2 ♘f3 e6 3 ♗g5 d5 4 ♘bd2 ♗e7 5 e3 ♘bd7 6 ♗d3 c5 7 c3 b6

Carefully keeping options open for his king. 7...0-0 would be less accurate.

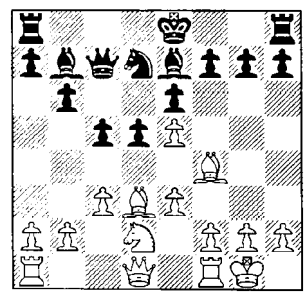
8 0-0 ♗b7 9 ♘e5

After playing a relatively quiet opening, Spassky now seeks more complex play. However Black's chances are already at least even.

9...♘xe5! 10 dxe5 ♘d7 11 ♗f4

11 ♗xe7 ♕xe7 12 f4 0-0 13 e4 was objectively preferable here, with equality, but this would be admitting that the opening has not been a success. In a match one is supposed to win with White...

11...♕c7



12 ♘f3

12 ♕g4? runs into 12...g5!. Black now decides on the aggressive plan of advancing his kingside pawns and castling queenside. Timing is important;

:astling at once would allow 13 h4 h6 4 h5, so Black expands on the kingside irst (12...h6 13 h4 g5 14 hxg5 hxg5 and he h-file is too dangerous).

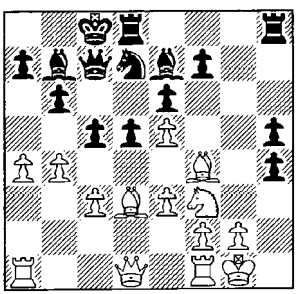
12...h6! 13 b4!?

An imaginative riposte. It is tempting for Black to accept the sacrifice, since after 13...cxb4 14 cxb4 ♗xb4 15 ♖c1 ♗c5 the c5-square is very solid. However, 15 ♘d4 gives reasonable play since after 15...a6 16 ♕g4 g5 17 ♗g3 White has tricks against the loose bishop on b4 as well as the f4 pawn break. Instead of this, Black carries on with his original plan.

13...g5 14 ♗g3 h5! 15 h4 gxh4

15...g4 16 ♘g5 ♘xe5 17 ♗b5+ ♔f8 wins a pawn, but gives White chances to develop active play. Petrosian again prefers not to be distracted by such possibilities. Grabbing the b-pawn with 16...cxb4 17 cxb4 ♗xb4 allows White to open the f-file with 18 f3!.

16 ♗f4 0-0-0 17 a4?



A move which has been strongly criticized. Spassky probably did not expect the following deep move which paradoxically shuts in the bishop on b7 and gives White the square d4. The purpose is to close off the queenside completely so as to concentrate on the other wing without having to worry about counterplay. In view of this 17 bxc5 bxc5 18 ♖b1 would have been stronger.

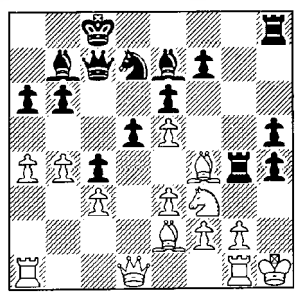
17...c4! 18 ♗e2?!

Spassky saw, but rejected, the stronger 18 ♗f5!, an elegant as well as paradoxical way to get the bishop to h3 (18...exf5 19 e6! ♗d6 20 ♗xd6 ♕xd6 21 exd7+ ♖xd7 22 ♘d4 with excellent compensation for the pawns). He decided that the bishop on h3 was too passive, hitting only the stonewall on f7 and e6. However, such a set-up was necessary, since now he never gets back into the game as Black starts a general advance.

18...a6!

Sealing up the queenside, for example if 19 a5 b5!, or alternatively 19 b5 a5!.

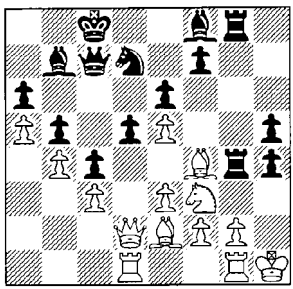
19 ♔h1 ♖dg8 20 ♖g1 ♖g4!



An aesthetically motivated move, preparing a future exchange sacrifice to liven up the kingside pawns. Such

judgements, not based on calculation, are sometimes very easy for top-class players.

21 ♕d2 ♖hg8 22 a5 b5 23 ♖ad1 ♗f8



Preparing to round up the e5-pawn. White feels compelled to do something.

24 ♘h2 ♘xe5! 25 ♘xg4 hxg4

With two pawns and an attacking space advantage for the exchange one cannot really speak of a sacrifice or paradox of material. Black starts a wave-like advance of all his central pawns. It creates a strange geometrical effect since the far-advanced pawns stretch from one side of the board to the other. White struggles hard to keep his chances alive but Petrosian punches home his advantage dynamically.

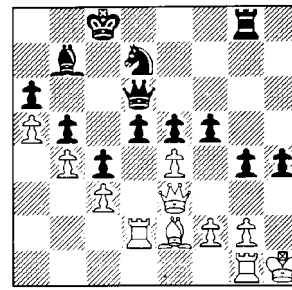
26 e4 ♗d6 27 ♕e3 ♘d7 28 ♗xd6 ♕xd6 29 ♖d4?!

As before, Spassky should accept a totally passive position in order to improve his holding chances. 29 f4 f5 30 e5 ♕c7 gives Black all the time he could want to organize his attack, but perhaps not enough scope to force a win. Such positions are extremely uncomfortable, psychologically, for the defending side, so Spassky seeks complications instead.

29...e5 30 ♖d2

Giving back the exchange with 30 ♖xd5 ♗xd5 31 ♖d1 ♘f6 32 exd5 also leaves Black in control.

30...f5



31 exd5

After 31 exf5 Petrosian intended 31...♘f6 32 ♕h6 ♕d8 followed by 33...♖h8.

31...f4 32 ♕e4 ♘f6 33 ♕f5+ ♔b8 34 f3

No good is 34 ♕e6? ♕xe6 35 dxe6 ♘e4 hitting the rook on d2 as well as threatening surprise mate by 36...♘xf2+ 37 ♔h2 g3#!

34....♗c8 35 ♕b1 g3

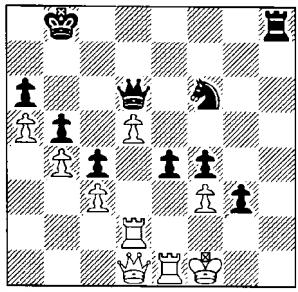
The flowing wave of black pawns continues its advance. White is being crushed.

36 ♖e1 h3 37 ♗f1 ♖h8 38 gxh3 ♗xh3 39 ♔g1 ♗xf1 40 ♔xf1

If 40 ♖xf1, then 40...♕d7! threatening ...♕a7+ and ...♕h3. The king tries to run but cannot escape the pawns.

40...e4! 41 ♕d1

After 41 fxe4 f3! no further tactical brilliance will be necessary.



41...♘g4!

Incisively wrapping it up. This sacrifice would have been calculated to a finish. Still, nice to see a touch of paradox of material added to the brew.

42 fxg4 f3 43 ♖g2 fxg2+ 0-1

A pity to spoil the pawns, but perhaps good enough since White now resigned (44 ♔xg2 ♕f4 wins). More elegant would have been 43...♖h1+! 44 ♖g1 ♕h6 with mate soon to follow, for example 45 ♕c2 ♕h3+ 46 ♕g2 ♕xg2#.

A very powerful display of positional chess from Petrosian. The main aesthetic feature was flow, in particular the across-the-board advance of the whole army of black pawns. There were a number of other nice touches too, such as 18...a6!, 20...♖g4! and 41...♘g4!. Some of the ideas that did not materialize on the board were also attractive (18 ♗f5!, the mate after 34 ♕e6). Petrosian timed everything right and won one of the smoothest and most emphatic victories ever recorded in a World Championship match. There were no major tactical thunderbolts but nevertheless, in its own way, it is a very spectacular game.

In our next presentation, English Grandmaster Tony Kosten uncorks a vintage game in the style of Morphy. His opponent, the usually solid Hungarian GM Farago, admirably complements this by playing in the true style of 'the allies'.

6.14 A.Kosten-I.Farago

Amantea 1992

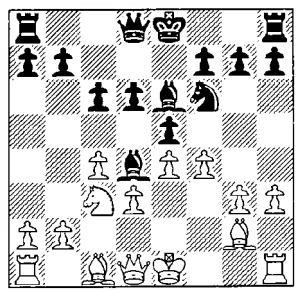
1 c4 ♘f6 2 ♘c3 e5 3 ♘f3 ♘c6 4 e4

True, the opening is not very 'Morphyesque'. The self-inflicted weakness on d4 is 'positionally paradoxical' but difficult to exploit: 4...♗c5 allows 5 ♘xe5! with advantage to White. Co-author DF has played this system (as White) and considers Black's best to be 4...d6 5 d4 ♗g4, but Farago follows the example of Karpov – 'mysteriously' losing a tempo getting the bishop to c5 (so as to avoid the fork trick).

4...♗b4 5 d3 d6 6 g3 ♗c5 7 ♗g2 ♘d4 8 ♘xd4 ♗xd4 9 h3 ♗e6

The immediate 9...c6 is preferable, with a balanced position.

10 f4 c6



Deviating from Gulko-Karpov, Reykjavik 1991, where Black chose 10...a6 instead, aiming for a later ...b5. Kosten's early f4 has caused his king a slight problem, which he solves in the next few moves with an imaginative manoeuvre. In that he breaks a rule about not moving the king around in the centre, these moves may be seen as paradoxical, but the logic is clear: White moves his king to a safer position. First he gains time by hitting the bishop.

11 ♘e2 ♗c5 12 ♗f3 ♕b6 13 ♔f1! ♗e3?!

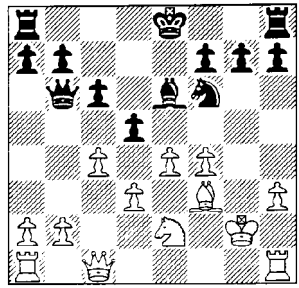
This does not work out well. Black has, seemingly, not done much wrong but is soon in serious trouble. However, it was difficult to perceive at this stage the energy which White is about to unleash.

14 ♔g2 exf4 15 gxf4 ♗xc1

After the game, Farago showed that his queen would have been dominated if he had played 15...d5 16 cxd5 cxd5 17 ♗xe3 ♕xe3 18 e5 ♘g8 19 d4!. Black would get a lousy ending after 19...♖c8! 20 ♖c1 ♖xc1 21 ♕xc1 ♕xc1 22 ♖xc1 due to the weakness of the d5-pawn as well as his deficit in development.

16 ♕xc1 d5?

Black is consistent, but, surprisingly, he seems to be just lost after this. Castling one way or the other, with 'only' a strategic disadvantage (poor central control) was objectively better. White now charges forward in the centre, opening up the game with a devastating sacrificial advance. Further paradox is involved here: giving up a pawn and ruining his main asset (the pawn centre) at a time when his rooks do not seem ready for it. However, Black is pushed back into a state of even greater unreadiness.



17 f5! dxe4 18 dxe4 ♗d7 19 e5 ♘g8 20 c5!

As in Spassky-Petrosian earlier, the pawns all go forward together. This advance is to enable the move 23 ♘d4! later.

20...♕c7 21 e6! fxe6 22 fxe6 ♗xe6 23 ♘d4! ♗d7

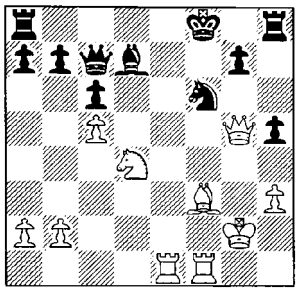
The bishop keeps an eye on the f5-square, hoping to chop off the white knight should it venture there. White's rooks now take up their posts with a dangerous attack. However, the white minor pieces are not yet threatening anything serious, so Black has, it seems, fair chances to hold on. Any chances he might have had are destroyed by a series of tactical blows.

24 ♕g5! ♘f6 25 ♖ae1+ ♔f8!

Another 'secret' of playing spectacular chess is for your opponent to play just badly enough to let it all happen, but not so badly as to make it too easy. 25...♔f7 allows 26 ♖e7+! ♔xe7 27 ♕xg7+ when Black falls apart 'with

check'. After 25...♔f8, 26 ♖e7? fails to the counter-tactic 26...♗xh3+!. The alternative 25...♔d8 26 ♖d1 ♔c8 27 ♖he1 is also bad for Black due to his boxed-in a8-rook.

26 ♖hf1 h5



A defensive resource preparing to buttress the sensitive f6 point and bring the h8-rook into play with ...♖h6. The immediate 26...♕d8 is no better since after 27 ♗g4! ♗xg4 28 ♕xg4 one need only compare the two sides' rooks to conclude the case in favour of the prosecution.

27 ♗d5!?

27 ♖e6! (Nunn) is a simpler win, e.g. 27...♕d8 28 ♗xh5 ♖h6 29 ♘f5. This alternative removes a chunk of aesthetic integrity from the game. However, 27 ♗d5!? is more spectacular, and after 27...♕d8 comes the strongly paradoxical 28 ♖e8+!!, winning. The rook is *en prise* several times; however, 28...♘xe8 is illegal, 28...♔xe8 allows 29 ♕g6+ and 30 ♕f7#, 28...♗xe8 29 ♘e6+ wins material and, lastly, 28...♕xe8 29 ♖xf6+ ♔e7 30 ♖f7#. Black plays the other natural defence only to run into an elegant queen sacrifice.

27...♖h6 28 ♕xh6! gxh6 29 ♖xf6+ ♔g7 30 ♖f7+ ♔g6

If 30...♔h8, then 31 ♖ee7 ♖g8+ (31...cxd5 32 ♖h7+ ♔g8 33 ♖eg7+ ♔f8 34 ♘e6+ ♗xe6 35 ♖xc7 winning) 32 ♔h1! ♖g1+ 33 ♔xg1 ♕g3+ 34 ♗g2 wins.

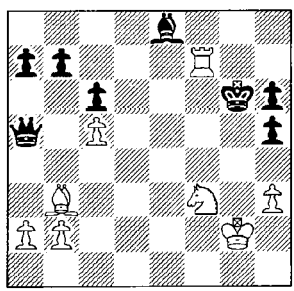
31 ♗b3

In time trouble Tony fails to play the more straightforward 31 ♘e6! winning (e.g. 31...♔xf7 32 ♘xc7+, or 31...♗xe6 32 ♖xe6+ ♔xf7 33 ♖xc6+). However, the situation is not critical and 31 ♗b3 maintains the win. That there is this luxury of choice is an aesthetic fault, but in games you cannot have everything. In fact, 31 ♗b3 leads to a more elegant, flowing finish with a pretty final mate.

31...♕a5

Attacks the rook, but White deals with this easily enough. 31...♕c8 32 ♖ee7 ♗xh3+ 33 ♔h2 ♗g4 (nothing else helps) 34 ♗c2+ ♔g5 35 ♖e5+ ♔h4 36 ♖f4 with 37 ♘f3 mate is no better. There is no defence.

32 ♘f3! ♖e8 33 ♖xe8 ♗xe8



Can you see the mate in four? With

very little time on his clock, Kosten finds the only path:

34 ♘e5+ ♔g5 35 h4+! ♔xh4 36 ♘f3+

and **Black resigned** in view of 36...♔g4 37 ♗e6 mate!

One of your co-authors was present at the tournament where this game was played and can vouch as to how satisfying this performance was to the winner. The poolside demonstration on a warm Italian evening left several slightly drunk and envious players wishing they had produced such a game! It is quite lightweight (no long difficult variations) but has a flowing finish, a fine opportunistic pawn charge early on and some excellent paradoxical touches (21 e6!; 27 ♗d5!?; 28 ♕xh6! and, best of all, 28 ♖c8+!! if Black had played 27...♕d8).

One of the great things about chess (some would say it is the greatest thing) is that, even if you are not a great player, it is possible to turn in an occasional gem of a game. Here is DF using the same opening as Kosten-Farago and delivering a nice deep combination, as well as some paradox and flow (annotations by DF).

6.15 D.Friedgood-K.Mah

British League 1998

1 c4 e5 2 ♘c3 ♘c6 3 ♘f3 ♘f6 4 e4 ♗c5 5 ♘xe5

If it were not for this move, Black's 4...♗c5 would refute the Nimzowitsch Variation completely.

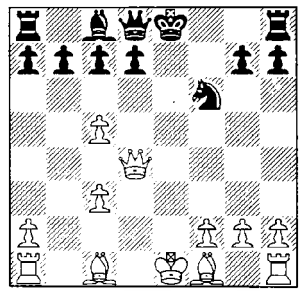
5...♘xe5 6 d4 ♗b4 7 dxe5 ♘xe4 8 ♕d4 f5!?

Normal is 8...♘xc3 9 bxc3 ♗e7 (or 9...♗a5). The text allows White to gain the two bishops plus a comfortable space advantage at no price.

9 exf6 ♗xc3+

This is not immediately necessary. An intriguing transposition of moves was possible by 9...♘xf6 10 c5! ♕e7+ 11 ♗e3 ♗xc3+ and now 12 ♕xc3 is well met by 12...♘d5, so a transposition to the game by 12 bxc3 would have occurred.

10 bxc3 ♘xf6 11 c5!



The best move of the game. It is not as paradoxical as it looks, because after 11...♕e7+ 12 ♗e3 0-0 13 ♗c4+ White regains the lost development tempo.

11...♕e7+ 12 ♗e3 ♕e4?

Handing White an opportunity to prevent castling and thus increase his advantage. After 12...0-0 13 ♗c4+ ♔h8 14 0-0 b6 White is better but Black is still in the game.

13 ♗c4! ♕xd4

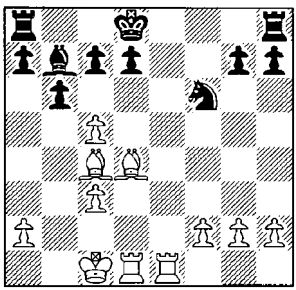
13...♕xg2 14 0-0-0 quickly leads to an overwhelming position for White (but not 14 ♕e5+ ♔d8 15 ♗g5?? and instead of accepting the double-rook

sacrifice Black wins with 15...♖e8). Also if 13...b6, White has 14 ♕xe4+ ♘xe4 15 ♗d5.

14 ♗xd4 b6 15 0-0-0 ♗b7?

This leads to a win by force for White. Necessary was 15...bxc5 16 ♖he1+ ♔d8 (16...♔f8?? 17 ♗xc5+ d6 18 ♖xd6) 17 ♗xc5 d6 and, despite all the advantages of two bishops, more space and better development, there is no clear win in sight for White.

16 ♖he1+ ♔d8



17 ♗xf6+!

At this point I had worked out the play until my 27th move, and correctly judged it to be a clear win.

17...gxf6 18 ♗e6 d6

18...♗c6 19 ♗xd7 ♗xd7 20 c6 shows the folly of declining to exchange this pawn on his 15th move.

19 cxd6 ♗xg2 20 ♖g1!

Unexpectedly shifting the rook from a good file to an even better one. It was this move that took some finding when considering 17 ♗xf6+.

20...♗f3 21 ♖g7!

Another surprise, not so much the exchange sacrifice as the lack of any defence whatsoever for Black.

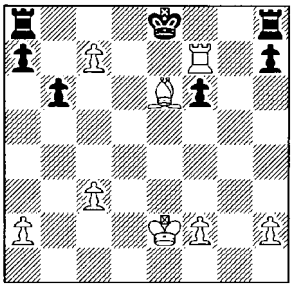
21...♗xd1

If instead 21...c5 (or 21...c6), then 22 ♖dg1 is curtains, while 21...cxd6 22 ♖xd6+ ♔e8 23 ♖dd7 gives White the seventh rank absolute.

22 dxc7+ ♔e8 23 ♔xd1

23 c8♕+ ♖xc8 24 ♗xc8 ♗f3 25 ♖xa7 ♖g8 allows Black to randomize.

23...♔f8 24 ♖f7+ ♔e8 25 ♔e2



Black is in zugzwang and White does not even need to advance his king to administer the hemlock. In the ensuing play White has a number of alternatives but chooses to keep control until the knockout blow opportunity presents itself:

25...h5 26 h4 f5 27 ♖g7 ♔f8 28 ♖d7 ♔e8 29 ♗xf5 ♖h6 30 ♖d4 1-0

Even the despairing 30...♖c6 leads to 31 ♗d7+.

6.16 P.Vučinić-Durović

Yugoslavia 1984

1 e4 ♘f6 2 ♘c3 d5 3 exd5 ♘xd5 4 ♗c4 ♘b6

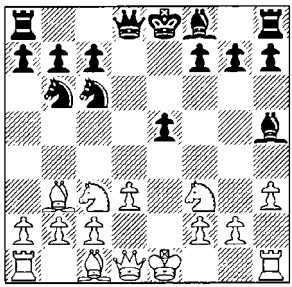
Safe enough is 4...♘xc3 5 ♕f3! e6 6

♕xc3 ♕f6.

5 ♗b3 e5?!

Loosening. Black should not be so ambitious.

6 d3 ♘c6 7 ♘f3 ♗g4 8 h3 ♗h5?

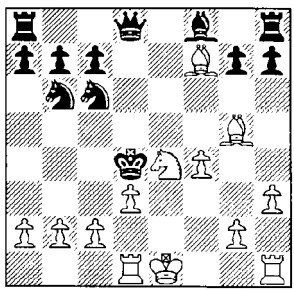


Losing, although it has been seen in several games. Necessary is 8...♗xf3 9 ♕xf3, when White is better.

9 ♘xe5!!

Rather deeper than Legall's mate (e.g. 1 e4 e5 2 ♗c4 d6 3 ♘f3 ♗g4 4 ♘c3 g6? 5 ♘xe5 ♗xd1 6 ♗xf7+ ♔e7 7 ♘d5#), but the same basic idea.

9...♗xd1 10 ♗xf7+ ♔e7 11 ♗g5+ ♔d6 12 ♘e4+ ♔xe5 13 f4+ ♔d4 14 ♖xd1!



The end of the flowing sequence. Black now has a number of alternatives but all lose. E.Rozentalis-A.Mikenas, Vilnius 1981, continued 14...♘b4 15 c3+ ♔e3 16 0-0 (and not the spectacular 16 ♖f1?? ♘c2 mate!) 16...♘xd3 17 ♘g3 1-0. Instead Black tries to return the queen:

14...♕xg5 15 c3+ ♔e3 16 0-0

Pleasingly ignoring the queen although 16 fxg5 also leads to mate after 16...♗f4 17 0-0+ ♔e5 18 d4+! ♔xe4 19 ♖f3! ♘xd4 20 ♖e1+ ♘e2+ 21 ♖xe2#. If Black tries 16...♗c5, 17 0-0 will transpose to the next note.

16...♕h4

After 16...♗c5 17 fxg5 ♘a4 (to prevent a simple win on material), 18 ♘g3 threatens mate. One elegant win: 18...♘d4 19 ♖f2! (threatening 20 ♘f1 mate) 19...♘c2+ 20 ♔f1! ♘xg3+ 21 ♔e1 ♘xc3 22 bxc3 when Black cannot prevent 23 ♖f3 mate. There is plenty of paradox in this line since White first castles and then allows Black to drive his king back to e1 (with check). *Fritz* 3, who discovered this variation, probably enjoyed it greatly.

17 ♖f3+ ♔e2 18 ♖d2+ 1-0

18...♔e1 allows 19 ♖f1 mate.

A sparkling miniature with sacrificial paradox, some depth and an elegant flowing king-hunt (with a geometrical across-the-board effect as in Lasker-Thomas seen earlier). The central idea (9 ♘xe5!!) is not original, however, so stronger players may not rate this game as high as they would otherwise. Still, it has a naïve charm which balances some of the more sophisticated stuff seen in the other games of this section.

We finish with three games by the strongest player in recent history, Kasparov. His games are almost always dynamic. Maybe because he played less than Karpov he was able to play consistently with such creativity and energy. As has been pointed out, his style (based on power and calculation) tends to be disruptive and violent rather than smooth – perhaps this is a reflection of the true nature of chess when played correctly by only one of the two sides.

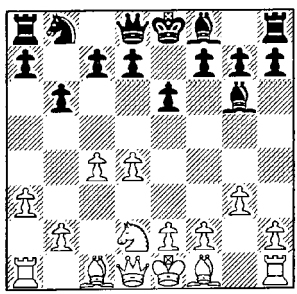
The first game is relatively lightweight. The eighteen-year-old genius crushes the usually reliable Andersson in sparkling style:

6.17 G.Kasparov-U.Andersson
Tilburg 1981

1 d4 ♘f6 2 c4 e6 3 ♘f3 b6 4 a3 ♗b7 5 ♘c3 ♘e4 6 ♘xe4 ♗xe4 7 ♘d2!

Gaining time against the bishop. After 7...♗b7 8 e4 White gains the advantage due to his pawn centre. Andersson goes the other way, allowing White to seize the long h1-a8 diagonal.

7...♗g6 8 g3



8...♘c6?!

Several of Andersson's moves in this game are a little provocative (9...a6 and 12...♘a7 fall into this category). Better would be the solid 8...c6, with just a slight disadvantage for Black.

9 e3 a6 10 b4!

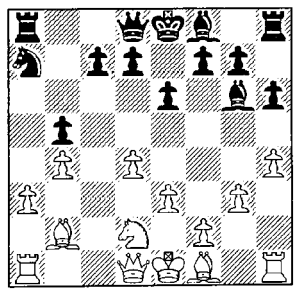
More accurate than 10 ♗g2 b5 11 cxb5 axb5. By leaving the bishop on f1 temporarily, White attacks b5 for a little longer.

10...b5 11 cxb5 axb5 12 ♗b2

Not 12 ♗xb5? ♘xb4! with a comfortable position for Black. Now Black must defend b5. His next move places the knight on a passive square, but Andersson is hoping to have time for a subsequent ...d5, ...♘c8, ...♘d6, ...♘c4 after which he would be fine. However Kasparov disrupts all this with a very deep pawn sacrifice.

12...♘a7 13 h4 h6?!

13...h5 was better. Later on White makes good use of the g4-square.

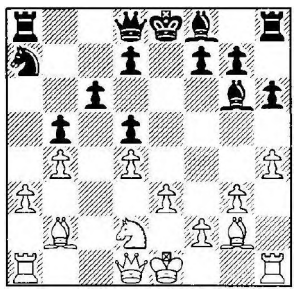


14 d5!!

A deep and genuine sacrifice of a pawn. White opens the diagonal for his bishop on b2 and causes its opposite

number on f8 some developmental problems. Clear compensation perhaps, but it is a 'big' central pawn that he is giving away in original fashion. The sacrifice is based on dynamic considerations such as the weak knight on a7 and the ease with which White's pieces flow into dangerous attacking positions over the course of the next ten moves. Kasparov later described this game as being one of his favourites. Although the finish is most attractive, it may well be the paradoxical and nonchalant 14 d5 which really appealed to him.

14...exd5 15 ♗g2 c6



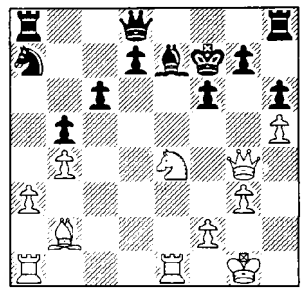
16 0-0!

Calmly completing his development. White is looking to open it up with e3-e4 but first extracts the maximum from the position. If Black tries to prevent e4 with 16...f5 then White elegantly switches plans with 17 ♘f3 ♕e7 (stopping 18 ♘e5 with 17...d6 weakens e6 and c6, and after 18 ♘d4 ♕d7 19 a4 Black cannot cope with his problems) 18 ♘e5 ♕e6 19 a4. Black must try to develop: 19...♗d6 (19...♗xb4 20 ♘d3 ♗f8 21 axb5) 20 ♘xg6 ♕xg6 21 axb5 0-0 22 b6 ♘b5 23 ♖xa8 ♖xa8 24 ♗xd5+! illustrates White's advantage. Instead, Black tries to block the long dark diagonal so as to develop his bishop.

16...f6 17 ♖e1 ♗e7 18 ♕g4

Well timed, only after ...♗e7 has weakened the defence of g7.

18...♔f7 19 h5 ♗h7 20 e4 dxe4 21 ♗xe4 ♗xe4 22 ♘xe4



22...♘c8

The alternatives are no better: 22...♖e8 23 ♕g6+ ♔f8 (23...♔g8 24 ♗xf6!) 24 g4 with 25 ♘g3 and 26 ♘f5 to follow, except after 24...♘c8 25 ♘g3 ♘d6 when 26 g5! hxg5 27 h6! gxh6 28 ♘h5 leaves Black a touch cramped. Also 22...♖f8 23 ♖ad1 d5 24 ♘xf6! wins since either capture of the knight allows mate in one.

At least ...♘c8 gives Black the lateral defence of d7 by ...♖a7.

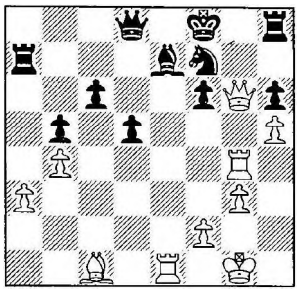
23 ♖ad1 ♖a7 24 ♘xf6!

Destruction; Black has no adequate defence. If 24...♗xf6, then 25 ♕g6+ ♔f8 26 ♗xf6 gxf6 27 ♖e6!.

24...gxf6 25 ♕g6+ ♔f8 26 ♗c1! d5 27 ♖d4

Threatening 28 ♖g4. Black brings his knight across to deal with this, but only to fall into a deeply prepared final combination. If instead 27...♗d6, 28 ♖g4 ♖ah7 29 ♗xh6+! ♖xh6 30 ♕g7#.

27...♘d6 28 ♖g4 ♘f7



29 ♗xh6+!!

Despite being defended twice, the pawn is taken anyway. 29...♖xh6 30 ♕g8# or 29...♘xh6 30 ♕g7+ ♔e8 31 ♕xh8+ ♔d7 32 ♕xh6 are both terminal for different reasons – mate or massive material advantage.

29...♔e8 30 ♗g7 1-0

Black cannot deal with the h-pawn as well!

Some strong paradoxical blows (14 d5!!, 24 ♘xf6!, 29 ♗xh6+!!), a deep pawn sacrifice (14 d5!!) and perfect timing throughout give this game a strong appeal. The game was earlier described as lightweight since all White's moves are easy to understand. Basically, Andersson just got heavily punished, in elegant style, for his faulty opening choices. It is hard to find anything wrong with his play after 13...h6?!.

6.18 A.Karpov-G.Kasparov

World Ch. (Game 16), Moscow 1985

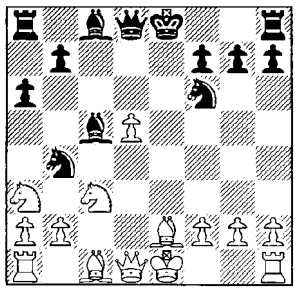
At the time of writing, these two great players have faced one another more than one hundred and eighty times! Not surprisingly, one could write a whole book on the aesthetic aspects of a number of great games between 'K' and 'K'. However, Kasparov himself is a great annotator and has covered most of these games, including the one below. It is game sixteen of the world championship match in which Kasparov first gained the title. We will restrict ourselves only to the crucial variations so as to concentrate on the aesthetic factors. (Readers who want more details should refer to Kasparov's wonderful notes in his book of the match).

This game is a complete masterpiece. It involves a deep and original strategy, sacrificing a central pawn in order to establish an outpost for a knight behind enemy lines. This piece restricts the opponent totally and Kasparov backs this up with perfect timing and an energetic, powerful finish. Kasparov commented that none of his earlier games compared 'as regards the grandiosity of the overall plan'. Unfortunately the game is a little too 'complete', also including a curious double blunder in the opening (a fact that was actually not unearthed until a year later)...

1 e4 c5 2 ♘f3 e6 3 d4 cxd4 4 ♘xd4 ♘c6 5 ♘b5 d6 6 c4 ♘f6 7 ♘1c3 a6 8 ♘a3 d5!? 9 cxd5 exd5 10 exd5 ♘b4 11 ♗e2

If Black simply recaptures the pawn on d5 now, he is a bit worse in the simplified position that results. Kasparov gives the continuation 11...♘bxd5 (11...♘fxd5 was later recommended) 12 0-0 ♗e7 13 ♘xd5 ♘xd5 14 ♗f3 ♗e6 15 ♘c2 as a sample line. However, Kasparov prepared the game continuation up to move twenty, missing (even in his notes after the game) the key improvement for White (12 ♗e3!) altogether. This move only came to light in the game A.Karpov-J.Van der Wiel, Brussels 1986, so presumably none of the world championship match commentators saw it either!

11...♗c5?



12 0-0?

This move was innocently passed over without comment by all the annotators until the improvement 12 ♗e3! was played in the above-mentioned game. After 12 ♗e3! ♗xe3 13 ♕a4+! ♘d7 14 ♕xb4 ♗c5 15 ♕e4+ White had a big advantage, as indeed he would have done with 14 fxe3 too. The final verdict has to be that 11...♗c5 is a blunder since the brilliant conception that follows here can be side-stepped by White with a clear advantage. Despite this major aesthetic flaw, the game still ranks high because of its compensating virtues.

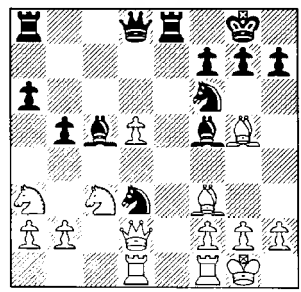
12...0-0! 13 ♗f3

White is now a clear pawn up, but Black's conception is deep: despite the lack of white weaknesses, Black is able to 'play round' the d5-pawn and get dynamic activity for all his pieces.

13...♗f5 14 ♗g5 ♖e8!

Keeping control of e4. Timing is so important in chess. Often the secret is to do what you want to do, but to make sure your opponent cannot do the same. 14...b5? 15 ♗e4! would leave White better.

15 ♕d2 b5 16 ♖ad1 ♘d3

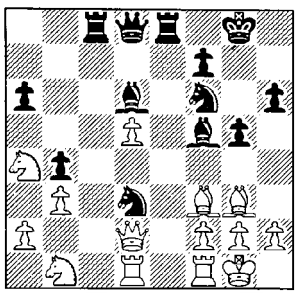


From its outpost behind enemy lines, the knight seriously cramps the white rooks. Karpov should react dynamically now with 17 d6 when the position is unclear. He prefers to hang solidly on to his extra pawn, but Kasparov regards the next move as his opponent's fatal error.

17 ♘ab1? h6 18 ♗h4 b4!

From b4 the black pawn dominates the knight on b1. White is being slowly constricted. Apparently Kasparov's preparation went as far as the next move!

19 ♘a4 ♗d6 20 ♔g3 ♖c8 21 b3 g5!!



A move players often enjoy making, since they derive pleasure from the paradox of breaking the rule about not charging pawns forward in front of their own castled king. Here it is designed to constrict White still further, the natural 22 ♘b2? failing to 22...♘xb2 23 ♕xb2 g4 24 ♗e2 ♖c2.

22 ♗xd6 ♕xd6 23 g3 ♘d7! 24 ♗g2

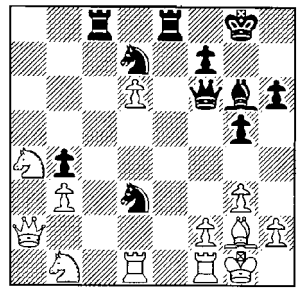
After 24 ♘b2, one beautiful variation is 24...♕f6!! 25 ♘xd3 ♗xd3 26 ♕xd3 ♘e5, with a paradoxical queen-trap in the middle of the board. Black's next move prevents the freeing 25 ♘b2 by White.

24...♕f6! 25 a3 a5!

Simply keeping control.

26 axb4 axb4 27 ♕a2 ♗g6 28 d6

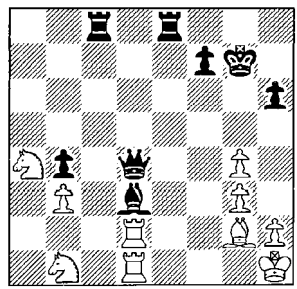
Hoping for 28...♕xd6 29 ♘d2 ♖e2 30 ♘c4! with some chances. Instead Black decides to keep White totally hemmed in.



28...g4! 29 ♕d2 ♔g7 30 f3 ♕xd6 31 fxg4 ♕d4+ 32 ♔h1 ♘f6

Black's powerful centralized forces prove more than ready for the opening up. Kasparov now closes in for the kill with a few more powerful blows.

33 ♖f4 ♘e4! 34 ♕xd3 ♘f2+! 35 ♖xf2 ♗xd3 36 ♖fd2



Now 36...♖e3 should win 'on material', but Kasparov finds a more dynamic finish.

36...♕e3! 37 ♖xd3 ♖c1! 38 ♘b2

After 38 ♖xe3 ♖xd1+ 39 ♗f1 ♖xe3 White will lose another piece.

38...♕f2! 39 ♘d2

Mate follows 39 ♖xc1 ♖e1+ 40 ♖xe1

♕xe1+ 41 ♗f1 ♕xf1#. The same mating pattern would have occurred if Karpov had not resigned after the next move.

39...♖xd1+ 40 ♘xd1 ♖e1+ 0-1

A great game, not just because of what Kasparov did, but also because of who he did it to. The master of constriction (Karpov) is himself bottled up and disposed of. A game well prepared, well played and well finished.

One game that has been almost universally recognized as 'brilliant' is the 1999 encounter between the great Kasparov and the rising Topalov at the Wijk aan Zee tournament. The game did the rounds of the chess journals and has been extensively analysed and debated elsewhere. Here we will concentrate on the aesthetic considerations, giving only the most important analytical points.

There are many questions to consider. Why does this game stand out? How important were the moves themselves or was it the famous names of the players that elevated this game above many others? Had the exact same moves been played in the Bundesliga between two 2500 players, would the game have become so well known? What aspects exactly are considered beautiful and why?

Let us have a look at the game and save the discussion until afterwards.

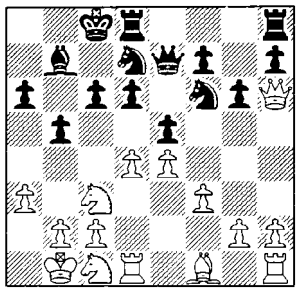
6.19 G.Kasparov-V.Topalov

Wijk aan Zee 1999

1 e4 d6 2 d4 ♘f6 3 ♘c3 g6 4 ♗e3 ♗g7 5 ♕d2 c6 6 f3 b5 7 ♘ge2 ♘bd7

As often occurs in the Pirc defence, White now exchanges the dark-squared bishops in an attempt to discourage the black king from going kingside.

8 ♗h6 ♗xh6 9 ♕xh6 ♗b7 10 a3 e5 11 0-0-0 ♕e7 12 ♔b1 a6 13 ♘c1 0-0-0

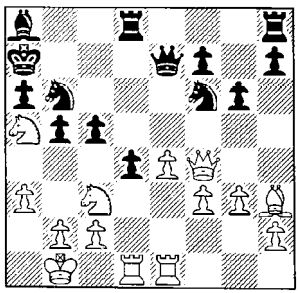


Both sides seek king safety by castling queenside.

14 ♘b3 exd4 15 ♖xd4 c5 16 ♖d1 ♘b6 17 g3 ♔b8 18 ♘a5 ♗a8 19 ♗h3 d5

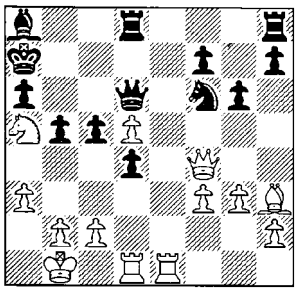
Kasparov said that he gained no advantage in the opening. The game is probably about level here.

20 ♕f4+ ♔a7 21 ♖he1 d4



At first sight White's next move appears very risky, leading to the possible loss of a pawn. No doubt Kasparov had already seen the tactical basis for his famous combination.

22 ♘d5 ♘bxd5 23 exd5 ♕d6



24 ♖xd4!

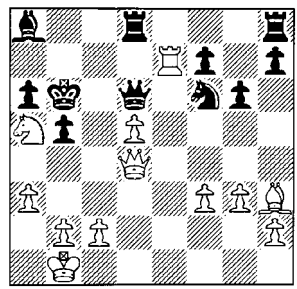
Many consider this move as the start of the combination. White is worse if he does not play it, so given what was pointed out in the note before White's 22nd move, for Kasparov the combination was already several moves old at this stage. Whatever the thought process involved, it is still a terrific rook sacrifice leading (at least in the critical line as played in the game) to a king hunt. Black did not have to accept the rook however, and 24...♔b6 was the best reply, after which Black would not have had any problems objectively. But why not take the rook? Topalov, already one of the best players in the world himself (at one point he was to be rated number one a few years later when Kasparov retired), investigated it and decided to take the material. Kasparov, as was almost always the case throughout his 20-year career at the top of world chess, had seen more.

24...cxd4? 25 ♖e7+ ♔b6

Declining the second rook offer since 25...♕xe7 26 ♕xd4+ ♔b8 27 ♕b6+ ♗b7 28 ♘c6+ ♔a8 29 ♕a7 is mate. Thus the black king is forced to brave the open frontier...

Paradox is the primary aesthetic value associated with any sacrifice. This game exhibits plenty of sacrifice, although the white queen is only on offer in the notes rather than in the moves played.

26 ♕xd4+



26...♔xa5

Kasparov had seen the brilliant idea of 26...♕c5 27 ♕xf6+ ♕d6 28 ♗e6!!. Now 28...♗xd5 (28...♔xa5 29 b4+ ♔a4 30 ♕c3 ♗xd5 31 ♔b2 fxe6 32 ♕b3+ ♗xb3 33 cxb3 is a beautiful mating pattern – including a queen offer – that is repeated in a number of variations) 29 b4! ♗a8 (White threatened 30 ♗xd5; the problem for Black is that both 29...fxe6 30 ♕d4+ and 29...♗xe6 30 ♖b7 are terminal) 30 ♕xf7 ♕d1+ 31 ♔b2

♕xf3 32 ♗f5 ♖d6 33 ♖a7 and Black can no longer defend.

27 b4+ ♔a4 28 ♕c3

28 ♖a7!, as suggested by Kavalek, was even stronger here, but Kasparov followed the line that his intuition and fantasy had long since foreseen.

We have to face the fact that even this great combination is marred by a dual. Looking at it from a study composer's viewpoint on soundness, there are not many 'perfect combinations' – also the longer they are the more likely they are to have such alternatives. Here, by luck, Kasparov's inferior choice is responsible for the gorgeous finish coming into existence.

28...♕xd5

28...♗xd5 29 ♔b2! ♕xe7 30 ♕b3+ ♗xb3 31 cxb3 leads to the familiar mate.

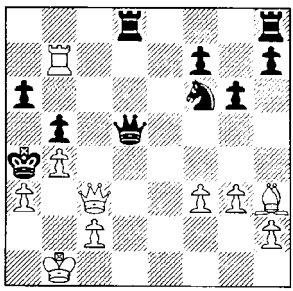
29 ♖a7

29 ♔b2?? ♕d4! no longer works for White.

29...♗b7

Necessary since 29...♖d6 30 ♔b2 ♕d4, 31 ♕xd4 ♖xd4 32 ♖xa6 is mate.

30 ♖xb7



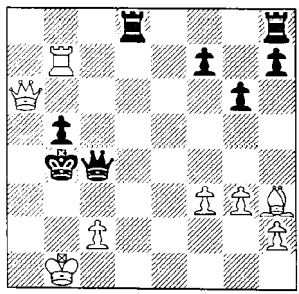
30...♕c4

Prevents the mate on b3 but allows White other options since he is now not so much material down. Instead 30...♖d6 fails to 31 ♖b6! ♖xb6 32 ♔b2 and 30...♖he8 fails to 31 ♖b6! (and not 31 ♖a7? ♖d6 32 ♔b2 ♕e5!), when after 31...♖a8 32 ♗f1 ♖e1+ 33 ♕xe1 ♘d7 34 ♖b7! ♕xb7 White has 35 ♕d1!, winning.

31 ♕xf6 ♔xa3

There was an alternative here for Black which led to a lost endgame: 31...♖d1+ 32 ♔b2 ♖a8 (if 32...♕d4+, 33 ♕xd4 ♖xd4 34 ♖xf7 ♖d6 35 ♖e7 is winning since 36 ♗e6 will follow) 33 ♕b6 ♕d4+ 34 ♕xd4 ♖xd4 35 ♖xf7 a5 36 ♗e6 axb4 37 ♗b3+ ♔a5 38 axb4+ ♖xb4 (after 38...♔b6 39 ♖xh7 White has too many extra pawns for the exchange) 39 c3 elegantly traps the rook and leads to a rook endgame where the two advantages of the extra pawn and the more active rook should combine to generate a clear win for White.

32 ♕xa6+ ♔xb4



Now everything is forced and the final touches of Kasparov's combina-

tive masterpiece are about to be played out, starting with yet another sacrifice (this time only a pawn):

33 c3+! ♔xc3 34 ♕a1+ ♔d2

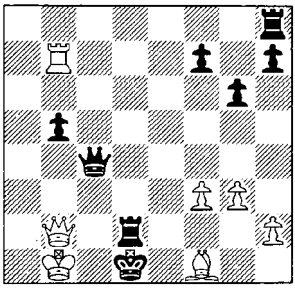
There is no escape for the travelling king: 34...♔b4 35 ♕b2+ ♔a5 (35...♕b3 36 ♖xb5+) 36 ♕a3+ ♕a4 37 ♖a7+ wins for White.

35 ♕b2+ ♔d1

Again, White mates after 35...♔e3 36 ♖e7+ ♔xf3 37 ♕g2.

36 ♗f1! ♖d2

If 36.. ♕xf1, 37 ♕c2+ ♔e1 38 ♖e7+ mates. Now White offers his rook yet again...



37 ♖d7!! ♖xd7

After 37...♔e1 38 ♖xd2 Black cannot even take the bishop without being mated next move. Topalov finds a way to continue briefly, but only by suffering a decisive material loss.

38 ♗xc4 bxc4 39 ♕xh8

Apparently Kasparov had seen this move a full fifteen moves earlier. I say apparently since it is according to Kasparov and nobody else has access to the inner workings of his brain. While many players have a tendency to exaggerate the amount they 'saw' (and a vested interest in doing so in that they will score more points given opponents are more frightened of them) I do not believe Kasparov to be one of them. From my personal dealings with him and also from the way he writes I would say he is an honest man who puts a high value on the truth.

I am not sure there is any other chess player in the world who, under normal competitive conditions, would have been able to see this position in their mind's eye at move 24. It represents a great achievement of a superlative human mind working at full throttle. Aesthetically there is of course a great deal of depth (seeing the point so far ahead) but I suspect it is not just the aesthetic consideration that made Kasparov so fond of this game. It is a testament to his power, to the sheer force of his own mind that was able to accomplish such a triumph of visualization.

39...♖d3 40 ♕a8 c3 41 ♕a4+ ♔e1 42 f4 f5 43 ♔c1 ♖d2 44 ♕a7 1-0

Having seen the game and the main analytical variations the reader can now join in the debate about its beauty. Kasparov himself clearly thought very highly of it, stating (in a lecture): 'And as all chess commentators agreed, the game that I played against Veselin Topalov that day in a small Dutch village of Wijk aan Zee was probably the best game ever played in the history of chess.'

He goes on: 'Obviously it was the best game I have ever played with an

amazing combination where I could see all the lines very clearly 15 moves ahead.' Kasparov is justifiably proud of the 'mixture of human intuition, determination and calculation' that enabled him to create this beautiful game and he talks about his ability to 'think geometrically', which helped him do it.

So Kasparov was clearly very taken by his own achievement, but is he being objective? Kasparov is without debate one of or the strongest players of all time (and with debate the strongest), but he is also indubitably a great expert on the game, very erudite and studied in all its intricacies. Normally his judgment about the qualities or otherwise of a game would be very astute indeed. Is it possible that his judgment is being clouded here by his own achievement? Is he being over partial to his own creation? Personally I think it is possible he is confusing his own emotional response to the game, by which (more precisely) I mean he is mixing normal aesthetic appreciation of a fine game with the emotional satisfaction of a fine performance and show of power. I suspect it is this combination of responses that makes Kasparov so fond of this game, not just the aesthetic component (although that too is considerable).

Nigel Short was clearly not that impressed, writing in *The Telegraph*: 'At the press conference announcing his retirement he (Kasparov) named the following game as perhaps his best. It would not have been my first choice, but beauty is in the eye of the beholder.' Later he commented on 24 ♖xd4!!: 'A wonderful combinative blow. That said, the sacrifice was completely forced and its acceptance permits a draw at least, which means that it entails no risk whatsoever. For this reason alone I would not consider the game to be Garry's most brilliant.'

Kavalek, writing in *The Washington Post* was of a similar opinion: 'It is certainly his most entertaining game but hardly his best.'

Speelman in *The Independent* was more impressed, writing 'Just occasionally, a game is played that is so sensational that even in the old days it would have traversed the globe in a week: a game which today, with the proliferation of Internet access, will wing its way within minutes or at most hours to all five continents. Such a one was Gary Kimovich Kasparov's magnificent victory against Veselin Topalov at Wijk aan Zee on Wednesday.'

Speelman went on revealingly to give his own criteria of appreciation: 'Aesthetic appreciation of chess games is by its very nature subjective. Personally, I go most of all for the unexpected, with a reasonable – but not necessarily excessive – level of violence highly acceptable, good endgame technique to be applauded and a king hunt as in today's game a great bonus. Some people also require "absolute soundness" but I think this is rather prissy – a well contested game is bound to be a bit unclear.'

In terms of the theory in this book, it would seem from what he writes that Jonathan Speelman is primarily a fan of

paradox. This is representative of the majority of practical players for whom geometry and flow are a little less tangible and immediate while depth, though respected and enjoyed, sometimes requires something a little too akin to hard work to appreciate. Speelman himself is of course capable of great depth but would know how difficult it can be to explain the beauty of it as compared with the more easily appreciated paradox. Meanwhile we would agree that 'absolute soundness' is an ideal (and necessity) for studies but no deal-breaker when it comes to appreciating real games.

Coming back to the Kasparov-Topalov game, one can certainly appreciate a number of paradoxical sacrifices in the game. There is unusual depth, as commented upon already. There is flow simply by virtue of the number of moves over which the combination is carried out. One could also see a number of geometrical aspects especially in moves like 34 ♕a1+ and 37 ♖d7! The whole combination is fresh, original, new... there is nothing familiar or standard about it.

The game has something for everybody, but it is basically one big combination. There is little in the game to merit enormous praise other than the combination. There are other games with several phases, all of which are beautiful in different ways, before an elegant final combination decides. There are certainly many games with light, flowing play and full of stylish positional nuances. In conclusion Kasparov-Topalov is a fantastic game and almost certainly the greatest of its type, though there are clearly other types of games and there are those that appreciate different types of play more. Of Kasparov's own games I (JL) would say his victory against Karpov in the 16th game of the Moscow World Championship in 1985 was, overall, a finer game of chess.

Chapter Seven

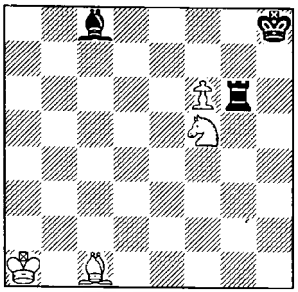
Tactical Fantasies: The Charm of Studies

'The beautiful rests on the foundations of the necessary.'
Ralph Waldo Emerson

'There are no positional assessments in studies.'
Mikhail Botvinnik

To many people studies are the highest form of chess art. Closer to the game than problems, but distant enough to maintain elevated aesthetic criteria, endgame studies should be pure and perfect – sound, yet with no extras and no waste. The word 'study' (from the French word 'etude') is off-putting to some, and, with its connotation of academic heaviness, fails to capture the essence of what it denotes. Studies are essentially pure tactics – often crisp and dazzling, always precise. Botvinnik expressed the real difference between the game and the study very succinctly: 'There are no positional assessments in studies.' Games are played for competitive reasons. Studies are composed mainly for aesthetic beauty. Good studies should never be boring.

Readers have already come across a number of studies earlier in the book. There they were chosen partly for their beauty and partly to illustrate our 'theory'. In this chapter you are in for a treat, and the studies are chosen purely to delight you! To illustrate the power of the endgame study, we will start with a masterpiece by the consistently spectacular Korolkov. Firstly we look at the logic of the moves, saving the aesthetic judgement until afterwards. Unless otherwise stated, diagram positions in this chapter are with White to play.



7.1 Win PFDG
V.Korolkov
1st Prize, Lelo 1951

1 f7

A natural opening move, threatening to promote. If 1...♖f6?, then 2 ♗b2 wins at once. All else fails, so Black must give a check.

1...♖a6+! 2 ♗a3!

Not 2 ♔b2? ♖f6! when 3 ♗b2 is not available.

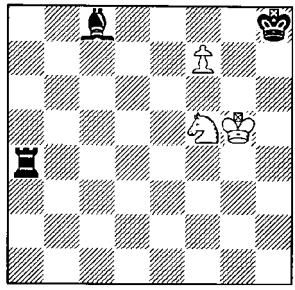
2...♖xa3+ 3 ♔b2 ♖a2+

If 3...♖b3+?, then 4 ♔a2 and the checks run out. The rook cannot be taken in either case, since ...♗e6+ draws, but how does White avoid endless desperado checks from Black's rook? White's next move is both precise and deep, the point only becoming clear on White's twelfth. 4 ♔c3? would fail: 4...♖c2+ 5 ♔b4 (5 ♔d4 ♖d2+ and ...♖d8) 5...♖b2+ 6 ♔c5 ♖c2+ 7 ♔b6 ♖b2+ and White cannot make progress since 8 ♔c7 allows 8...♖b7+ and 9...♖xf7.

4 ♔c1!! ♖a1+

Again 4...♖c2+ 5 ♔d1 and Black is helpless. There follows a flowing sequence in which the white king runs across the board in search of shelter.

5 ♔d2 ♖a2+ 6 ♔e3 ♖a3+ 7 ♔f4 ♖a4+ 8 ♔g5



8...♖g4+!

Black plays resourcefully too in this study. Now 9 ♔xg4? ♗xf5+ 10 ♔xf5 ♔g7 11 ♔e6 ♔f8 12 ♔f6 is stalemate. Also 9 ♔f6 or 9 ♔h5 both allow 9...♖g8! drawing. Only one move wins:

9 ♔h6! ♖g8!

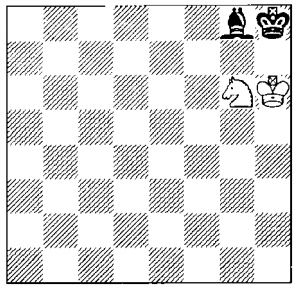
9...♖g6+ 10 ♔xg6 ♗xf5+ 11 ♔f6! wins. The finish is spectacular and unexpected:

10 ♘e7! ♗e6!

The rook is constrained by the twin possibilities f8♕ and ♘g6 e.g. 10...♖f8 11 ♘g6# or 10...♖g1 11 f8♕+. It appears now that the position is still drawn since 11 ♘g6+ ♖xg6+ 12 ♔xg6 ♗xf7+ reaches king vs. king. However, White can now offer his killer pawn and mate with just the knight.

11 fxg8♕+! ♗xg8 12 ♘g6#

If you have never seen this study before and fail to find it exciting, our only advice is to give up the game. You will have no future in chess!

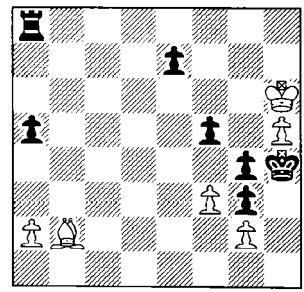


Why is this study so good? Primarily because of the long forcing sequence leading to the surprise mating finish. There is turbulent flow right across the board (note the geometrical effect created by the white king going from the a-file to the h-file), a paradoxical finish, and depth too (4 ♔c1!). A little bit of everything, but perhaps the most striking element is the economically constructed flow taking the solver from the start position to mate in twelve action-packed moves. A perfectly presented study, although not, in fact, original. The finish had been seen in a slightly weaker study published two years earlier by J.Selman.

Practical player or composer?

Further evidence of the practical value of aesthetic sensitivity is provided by the number of leading grandmasters who have also made an impact on the world of composition. Players such as Duras, Réti, Keres, Smyslov, Benko and Timman stand out. Four of these make it into Keene and Divinsky's controversial list of the 64 top players of all time, as judged in their 1989 book *Warriors of the Mind*. Smyslov is ninth, Keres sixteenth, Timman twenty-eighth and Duras sixty-second.

Several of these players might also make it into an analogous list of top study composers (we are still awaiting the book *Matadors of the Aesthetic...*). Kasparian would probably occupy one of the top spots, and he is also an International Master of practical play. Other leading contenders would include: Troitsky, Kubbel, Rinck, Korolkov, Liburkin, Grigoriev, Gurvich, Nadareishvili, D.Gurgenidze and Gorgiev to name but two handfuls. Here we will look at some compositions by practical-play grandmasters, starting with ex-World Champion Smyslov. You have already seen an example of 'incarceration' by him earlier; the following shows a positional draw and is exceptionally strong on paradox.



7.2 Draw PD

V.Smyslov, 4th Prize
Shakhmaty v SSSR 1938 - II

1 ♗f6+!!

Giving away his only piece. 1 f4 ♖a6+ wins for Black.

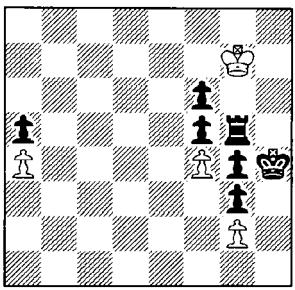
1...exf6 2 f4

White is now threatening simply to move his king and advance the h-pawn. Black prevents this in straightforward fashion.

2...♖h8+ 3 ♔g7!

3 ♔g6 would fail after 3...♖xh5 4 ♔g7 ♖g5+ 5 ♔h8 ♔h5 6 ♔h7 ♖g6 7 a3 (7 a4 ♖g5!) 7...♖h6+ 8 ♔g7 a4!. Some subtle zugzwang play is involved here (depth).

3...♖xh5 4 a4! ♖g5+



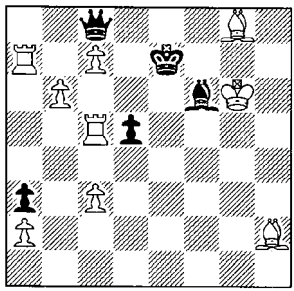
5 ♔h8!

Not 5 ♔h7? ♔h5! when White is in zugzwang.

5...♖g6 6 ♔h7 ♔h5 7 ♔h8 ♖h6+ 8 ♔g7 ♖g6+ 9 ♔h8

and Black can make no progress because 9...♔h6 is stalemate. The rook cannot extricate itself. A deep and paradoxical conception with subtle play.

Jan Timman published the next study in the well known magazine *New in Chess*.



7.3 Win FP(D)(G)
J.Timman
New in Chess 1994

1 ♗d6+!

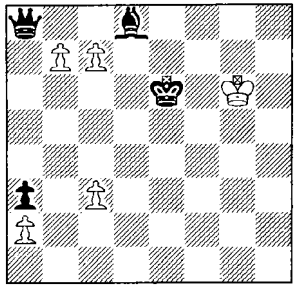
White must keep the initiative since his own king is exposed. The immediate 1 ♗e6? would fail: 1...♕e8+ 2 ♔f5 ♕h5+ 3 ♔f4 ♕xh2+ 4 ♔f3 ♕h1+! 5 ♔e2 ♕e4+! when the bishop will also join in the attack. The introduction/foreplay features a series of sacrifices to force the striking position after White's sixth:

1...♔xd6 2 ♖xd5+ ♔e7 3 ♗e6! ♔xe6

With the black pawn on d5 gone 3...♕e8+ 4 ♔f5 ♕h5+ 5 ♔f4! allows the king to escape to the queenside, winning for White. If the first three moves did not seem sufficiently clear to you, you will feel happier from here on in - it is all beautifully crisp.

4 ♖d8! ♗xd8 5 ♖a8! ♕xa8 6 b7!

A beautiful position, the basic idea of which had been seen earlier in a study by Nadareishvili. The finish of the study (on move sixteen) is also not original and dates back to the sixteenth century.

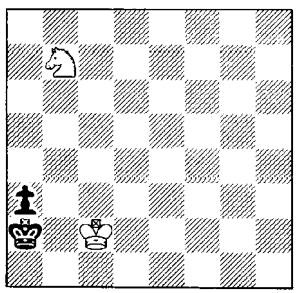


What is original is the brilliant way the two phases have been combined into a flowing whole. Black now has two options: the main line below or 6...♕a6 after which White wins technically with 7 cxd8♕ ♔e5+ 8 ♔g5 ♕xb7 9 ♕h8+! ♔d6 10 ♕d4+, forcing off the queens.

6...♕xb7 7 cxd8♘+ ♔d5 8 ♘xb7 ♔c4

All clever stuff, but isn't Black just drawing now?

9 ♔f5 ♔xc3 10 ♔e4 ♔b2 11 ♗d3 ♔xa2 12 ♔c2

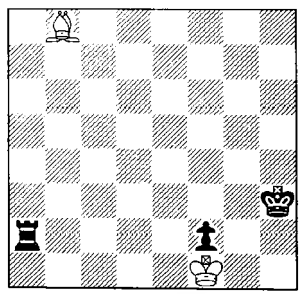


No! We now have the ancient finale (Stamma's mate).

12...♔a1 13 ♘c5! ♔a2 14 ♘d3 ♔a1 15 ♘c1 a2 16 ♘b3#

Why does this get the annotation FP(D)(G)? Because the main feature is the wonderful flow from the start position all the way to the final mate sixteen moves later. Plenty of sacrifices in the initial phase contribute to the paradox, as would the finish if it were not so well known. Although the study taken as a whole is deep, no individual move is especially profound. The point of each move is either immediately apparent or rapidly becomes so. The '(G)' is for the graphic geometry of the position after White's sixth. The trapezium of forces on a8, b7, c7 and d8 forms a memorable pattern. Spectacular chess indeed!

The Hungarian-American GM Pal Benko once told JL how he had used the following study, based on an adjournment analysis, to stump the likes of Spassky and Korchnoi.



7.4 Draw GD(P)

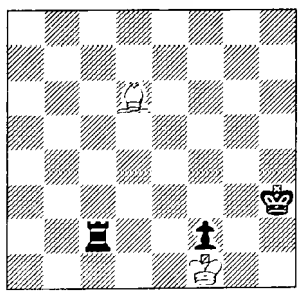
P.Benko, 1st Prize
Magyar Sakkélet 1967

As so often in chess, this position

needs to be grasped *dynamically*. Black wants to get his king across to f3, but an immediate ...♘g4 can be met by ♘g2. To stop ♘g2 the rook would like to get behind the passed pawn, using an attack on the bishop to gain the necessary time. This explains why only 1 ♗c7! draws, preparing to meet 1...♖a7 with 2 ♗b6 (attacking the rook *and* the pawn) followed by 3 ♗xf2. Other moves fail, e.g. 1 ♗e5? ♖a5! 2 ♗c7 (2 ♗d4 ♘g3! 3 ♗xf2+ ♘f3 4 ♗d4 ♖d5 5 ♗c3 ♖d1+ 6 ♗e1 ♖c1) attacks only the rook, allowing 2...♖f5 when White cannot prevent the transfer of the black king: 3 ♗b8 ♘g4 4 ♗a7 ♘f3 5 ♗xf2 ♖b5, winning.

1 ♗c7! ♖b2 2 ♗d6! ♖c2

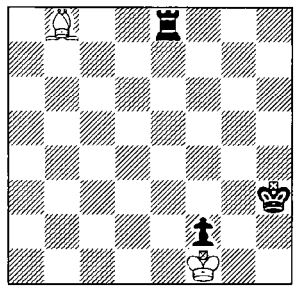
2...♖b6 3 ♗c5 is a draw. White's need to meet rook moves attacking the bishop with bishop moves attacking the rook *and* the pawn explains the geometric correspondence between the squares on the b8-f4 diagonal with the squares on the a2-e2 rank.



3 ♗e5! ♖d2 4 ♘f4! ♖e2!

The attack on the rook prevented 4...♘g4. If now 5 ♘xe2? then 5...♘g2! and the pawn will queen, so White has a problem. He must avoid getting 'zugzwanged' off the correct corresponding square, as would occur after 5 ♗d6? ♖b2! or 5 ♗c7? ♖a2! – this leaves just:

5 ♗b8! ♖e8



Does this not win, since 6 ♗a7 ♘g3 7 ♗xf2+ ♘f3 8 ♘g1 ♖g8+ 9 ♘f1 ♖b8 leaves White without a defence?

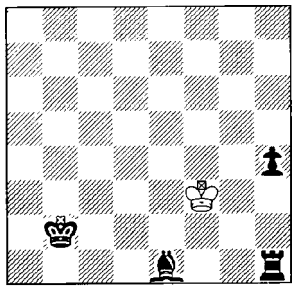
6 ♘g3!!

No! This final trick is possible with the rook on the e-file. 6...♘xg3 is stalemate, while 6...♘g4 allows 7 ♘xf2!, so the position is drawn.

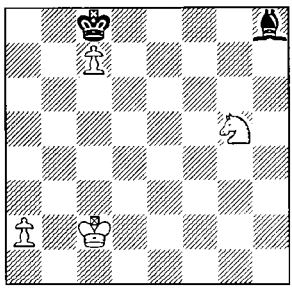
Domination and the paradox of positional draw

The colourful term *Domination* (introduced by Frenchman Henri Rinck) essentially denotes the trapping of a piece. The trapping of a king (checkmate!) is usually classed separately although it could easily be regarded as a special case of domination. *Positional draw* denotes positions where one side draws despite an apparently fatal material disadvantage. The following po-

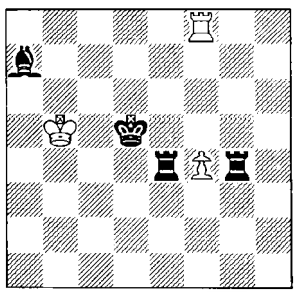
sitions illustrate these terms:



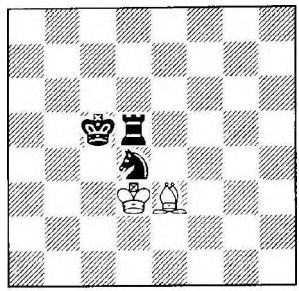
7.5 Draw (P)(G)



7.6 Win G(P)



7.7 Draw P



7.8 Draw P

In Diagram 7.5 (the end of a study by Herbstman, 3rd Prize *Zvezda* 1934) White dominates the rook with **1 ♔g2!** and obtains the well-known positional draw based on the 'wrong-coloured' rook pawn.

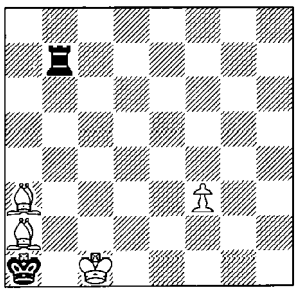
In Diagram 7.6 (H.Rinck, *El Escacs a Catalunya*, 1935) White dominates the bishop along the long diagonal: **1 ♘f7! ♗a1 2 ♗b1** wins, e.g. 2...♗c3/d4 3 ♘d6+ ♔xc7 4 ♘b5+ or 2...♗f6/g7 3 ♘d6+ ♔xc7 4 ♘e8+. Surprising how many squares the knight controls!

In Diagram 7.7 (the finish of a Korolkov/Mitrofanov co-production, 1st Prize *Trud* 1960) White either gets a perpetual check or wins a rook, reaching a materially drawn endgame: **1 ♖d8+! ♔e6 2 ♖e8+ ♔f5 3 ♖f8+ ♔g6 4 ♖g8+ ♔h5 5 ♖h8+** drawing.

Diagram 7.8 is the sort of thing that can seriously upset your computer, unless it is armed with a five-piece database! Black cannot make progress despite having a clear extra rook. A simple positional draw. Be warned:

one of the exercises at the end of this chapter will finish with this position!

The theme of domination necessarily involves some geometry. The Rinck above has graphic geometry (a long diagonal move) but more often it is of the 'optical logic' type. Sometimes dominations can be very surprising, in which case the final position, or some of the moves leading to it, will involve paradox too. Domination itself does not involve flow, but it is interesting to see the way composers can introduce flow into the 'foreplay'. In the chapter on 'flow' the study by Afek (5.5) ends with a paradoxical domination after a series of moves involving 'turbulent flow'. In the following study by Vitaly Halberstadt there is a little flow plus two deep opening moves.



7.9 Win GPD(F)
V.Halberstadt
L'Italia Scacchistica 1951

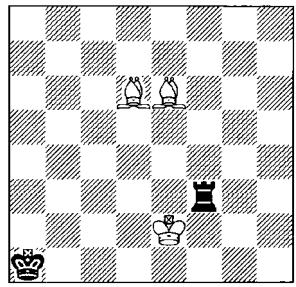
1 ♗e6!

In general the material balance is already winning for White. However Black has a stalemate trick that helps him to win the white pawn. Why only 1 ♗e6! works will be clear in the final position.

1...♖b3! 2 ♗d6! ♖c3+

Not immediately 2...♖xf3 because of 3 ♗e5+. It is pretty the way all the white pieces move into their positions for the surprising finish.

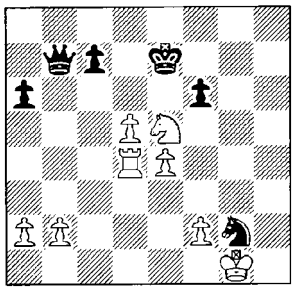
3 ♔d2 ♖xf3 4 ♔e2!



and wins the rook.

A typical domination in that there is a large dose of 'optical logic' geometry. The bishops control everything: 4...♖c3 5 ♗e5 ♔b2 6 ♔d2 and 4...♖f6 5 ♗e5+ should convince you.

Another way flow can be introduced into a domination study is as follows: White attacks a key black piece and almost dominates it – it is forced to go to its only remaining safe square. White attacks it again and so on until the end. A fine example of this was the Rinck from the Introduction (1.5) where the king chases the bishop in this way. Another dramatic example by Troitsky dates from 1910:



7.10 Win GPF

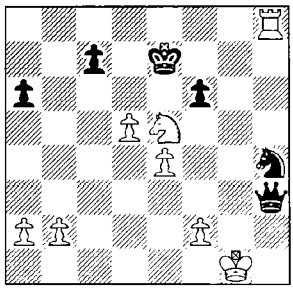
A.Troitsky

Deutsche Schachzeitung 1910

1 ♖b4!

The chase begins. 1...♕xb4 and 1...♕a7 allow 2 ♘c6+.

1...♕c8 2 ♖b8! ♕h3 3 ♖h8! ♘h4



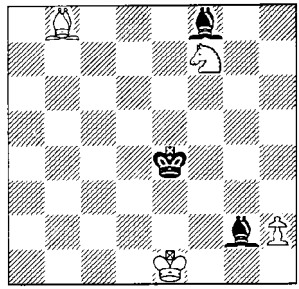
4 ♖xh4!

Now it goes in reverse direction! Fine slapstick. Note the multiple rook offers. Repeated sacrificial paradox, but there is no real depth.

4...♕c8 5 ♖h8! ♕b7 6 ♖b8!

Wins the queen and the game. The back-and-forth movement adds to the geometry of a scintillating chase.

The next example shows a type of 'double domination': White attacks one bishop so as to trap the other:



7.11 Win GPF

H.Rinck

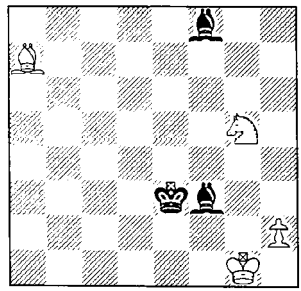
1st Prize, Le Temps 1929

White has an extra h-pawn but must win a bishop to get a decisive advantage.

1 ♔f2 ♗h1

Not 1...♗h3 2 ♘g5+.

2 ♔g1 ♗f3 3 ♘g5+ ♔e3 4 ♗a7+

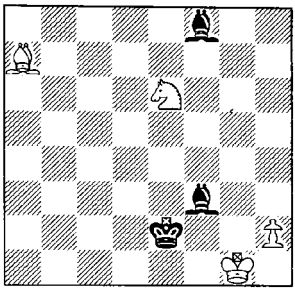


4...♔e2

If 4...♔f4, 5 ♘e6+. So far, Black has

had to defend his light-squared bishop. Suddenly White switches his attention to the other one:

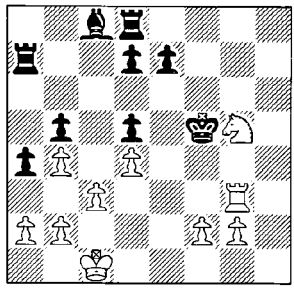
5 ♘e6!



Creating a surprise domination. 5...♗a3/b4 6 ♘d4+ ♔e3 7 ♘c2+ or 5...♗h6/d6/e7 6 ♘d4+ ♔e3 7 ♘f5+.

Positional draws typically show paradox. Surprisingly enough, a large material advantage does not suffice to win. Sometimes they can be complex too, requiring a dynamic appreciation of why the position is drawn (depth of the subtlety type). Geometry and flow are not generally involved, although again, good composers can bring them into the background of the study. The exercise leading to position 7.8 (see end of chapter) has both geometry and terrific flow in the play before the surprise 'positional draw' finish. At least it would have come as a surprise had we not told you about it!

One of the first composers to examine positional draws systematically was F.M.Simkhovich (1896-1945). We finish this section with one of his spectacular blockbusters. When GM David Norwood saw this study, he considered it the best he had ever seen.

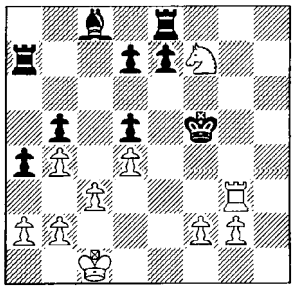


7.12 Draw FGP
F.Simkhovich
L'Italia Scacchistica 1924

1 ♘f7

White, a rook down, must attack something! Now 1...♖f8 allows 2 ♖f3+ ♔g6 3 ♘e5+ ♔g7 4 ♖g3+ ♔h7 5 ♖h3+ delivering perpetual check.

1...♖e8



2 ♘d6+!!

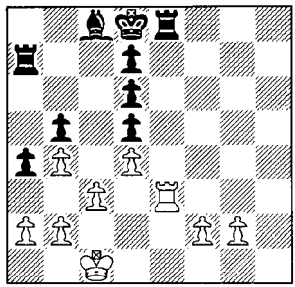
The point of this move only becomes clear about fifteen moves later!

Perhaps you can already see the contours of the forthcoming positional draw?

2...exd6 3 ♖f3+ ♔g6 4 ♖g3+ ♔f7 5 ♖f3+ ♔e7

Black attempts, naturally enough, to win by avoiding the continuous rook checks. To do this he must escape to d8. Now comes a highly paradoxical exchange of rooks, followed by a perfectly timed king march to set up an unassailable 'fortress' (a term introduced by Simkhovich himself).

6 ♖e3+ ♔d8



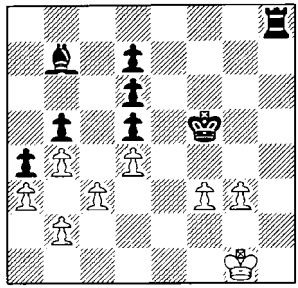
7 ♖xe8+!! ♔xe8 8 a3! ♗b7 9 ♔d1(d2) ♔f7 10 ♔e1(e2) ♖a8 11 ♔f1 ♖h8 12 ♔g1!

Just in time to keep Black out. Now White cannot be prevented from completing his barricade. The lack of uniqueness on moves nine and ten is a negligible aesthetic drawback.

12...♔f6 13 g3 ♔f5 14 f3

Again, just in time to keep the king out. Everything 'fits' into place perfectly in this study. You could expect something a bit better than average to make up for the unnatural start position. The last few moves are not forced, but demonstrate the draw.

14...♖e8 15 ♔f2 ♖e7 16 ♔f1 ♖h7 17 ♔g2 ♖h8 18 ♔g1



Black can make no progress (18...♖e8 19 ♔f2 ♖e7 20 ♔f1 ♖e3 21 ♔f2 ♖d3 22 ♔e2 with a domination thrown in too). The extraordinary final fortress explains all the earlier sacrifices. The well-timed 8 a3 (preventing Black from playing ...a3) and the white king march help to create a pleasant flow. Heroic and spectacular play, with some good sacrifices and a big 'concept' to end it all.

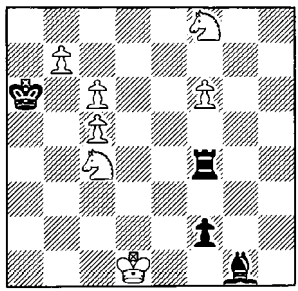
Before we move on to our final selection of studies and examples, we will take a brief interlude to look at the effect of computers on composition and chess in general...

Beauty, Truth and the Computer

Over the last decade, the influence of the mighty computer has been increasingly felt in all forms of chess. The practical player now has at his disposal a formidable analyst (especially in wild tactical positions), an enormous open-

ing theory database and a strong blitz sparring partner. The composer has a brilliant solver on hand to test the soundness of his problems. Using trial and error he is able to find better piece arrangements to express his ideas; so computers are certainly helping composers to compose better, more aesthetic problems even though they (the computers) have no aesthetic judgement beyond that of 'sound' and 'unsound'.

On the subject of testing soundness, the likes of *Fritz* and *Shredder* helped to deal a mortal blow to a modern classic which was given in the first edition of this book:



7.13

T.Gorgiev, 1st Prize
Schakend Nederland 1959

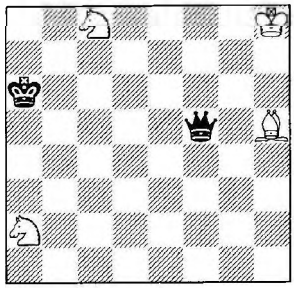
The solution ran **1 ♘e3 f1♕+ 2 ♘xf1 ♖xf1+ 3 ♔e2! ♖f2+! 4 ♔e1! ♖b2 5 ♘e6! ♗f2+ 6 ♔d1 ♗g3 7 f7 ♖f2 8 ♘f4!! ♖xf4! 9 b8♕ ♖f1+ 10 ♔e2 ♖f2+! 11 ♔e3 ♗xb8 12 c7!! ♗xc7 13 ♔xf2** and White will win.

Unfortunately Black has the resource **6...♗e3!** (instead of 6...♗g3), and this proves to be a 'bust'. White cannot win this position: **7 f7 ♗h6 8 f8♕** (after 8 ♘d8 ♖d2+ 9 ♔e1 ♖xd8 10 c7, Black can draw by playing 10...♖d1+! 11 ♔xd1 ♔xb7) **8...♗xf8 9 ♘d8** (or 9 ♘xf8 ♖xb7) **9...♖xb7 10 cxb7** (10 ♘xb7 ♗xc5!) **10...♔a7 11 c6 ♗d6**. White's king is too far away to support the pawns in time and Black draws after **12 ♔c2 ♔b6 13 ♔d3 ♔c7 14 ♘f7 ♗h2 15 ♔c4 ♔xc6**.

Another significant development is the rise of the endgame database. These give definitive results by systematically categorizing all the possible positions with a specific material balance. The new results are overturning theoretical judgements of the past, and a large number of endgame studies are being simultaneously cooked every time that happens.

For example it was previously held that the material balance of king, rook and bishop versus king, bishop and knight, with opposite-coloured bishops was in general a draw and only winning for the exchange-up side in exceptional cases where short-term tactical considerations predominated. Now computer analysis demonstrates that it is in general a win, and only a draw in exceptional (tactical) cases! Another (semi-) reversal is seen in the case of queen versus two knights. An example will help illustrate this:

(see following diagram)



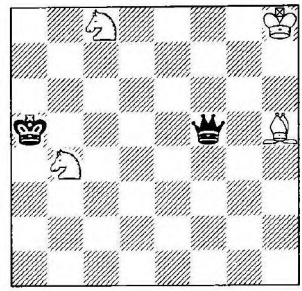
7.14 Draw FGP
G.Nadareishvili, 3rd Prize
Thèmes 64, 1958

A great pity that the computer has cast doubt on this, since the idea is very beautiful. Let us have a closer look and then try to 'rescue' it. The composer obviously liked it since the back cover of one of his books consisted of a small diagram of the position, surrounded by black.

Nadareishvili assumed, along with many others, that, in general a queen wins against two minor pieces, the result only being a draw in exceptional 'tactical' cases (such as the intended finish to this study). However, although this holds for queen versus bishop and knight, it does not hold for queen versus two knights.

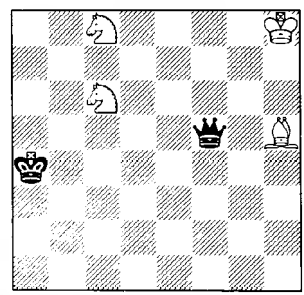
Many 'normal enough' positions involving queen versus two knights are drawn without there being a short-term tactical reason, although the situation is very complex and it is unsafe to assume anything at all! Returning to the study, White has a problem since his minor pieces are all in danger:

1 ♘b4+ ♔a5!



Forced as 1...♔b7? and 1...♔b5? lose to 2 ♘d6+. After 1 ♗e2+ ♔a5 White would indeed be lost (even allowing for the latest computer results) since a piece will drop in an unacceptable way.

2 ♘c6+ ♔a4!



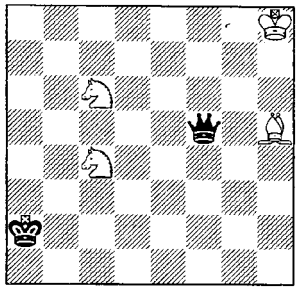
3 ♘b6+!

After 3 ♘8e7 (or 3 ♘6e7) ♕xh5+ a queen versus two knights position is reached. According to John Nunn and his database this one would be a win for Black (the study is sound so far).

3...♔a3! 4 ♘c4+

If 4 ♗f3 White loses the knight on b6 (4...♕xf3 5 ♘c4+ is a draw, as in the main line of the intended study) after 4...♕h3+! 5 ♔g7 ♕g3+ 6 ♔h6 ♕h2+ 7 ♔g5 ♕g1+ followed by 8...♕xb6 winning.

4...♔a2



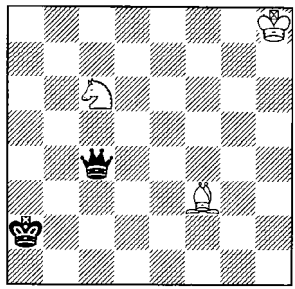
Now 5 ♘b4+? fails to 5...♔b3 when White has no way to continue. Unfortunately the computer cook comes here: 5 ♘4e5 is, apparently, a draw, while 5 ♘6e5 loses! It is beyond normal human comprehension why that is, although John Nunn might be able to explain it if you ever get stuck on a desert island with him! Anyhow, rational people seem to have faith that the computer is right. The study loses its unique solution at this point but Nadareishvili's drawing idea is very cute (and also by far the easiest way to draw).

5 ♗f3!!

Protects the c6-knight and threatens to keep all three minor pieces with ♘4e5 (definitely a draw!). Black can pick off either the bishop or the c4-knight, but in either case tactics save White:

a) 5...♕xf3 6 ♘b4+ ♔a1 7 ♘c2+ ♔a2 8 ♘b4+ with a repetition, the composer's intended main line.

b) 5...♕f8+ 6 ♔h7 ♕f7+ 7 ♔h8 ♕xc4

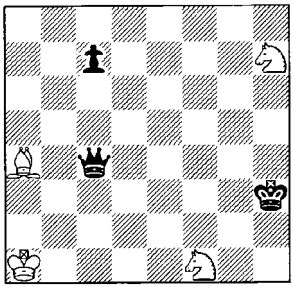


8 ♗d5!! ♕xd5 9 ♘b4+ and White draws.

Is this study beautiful, despite the computer cook? Some might think so; there is a beautiful flow as the knights chase the black king in a straight line down the a-file (a geometrical aspect here, too). Paradoxical twists end both lines 'a' and 'b'. However, in studies soundness is crucial. The rules for soundness are strict: essentially White should only have one way to achieve the task. The idea may be beautiful but the above study is of no value since it has two solutions. It is possible to rescue the study, but only at some aesthetic cost. Add a black pawn to the diagram position on f3. After that only Nadareishvili's intended solution works – exactly the same moves, but 5 ♗f3 is replaced by the more suggestive 5 ♗xf3 – a loss of paradoxical content as well as economy.

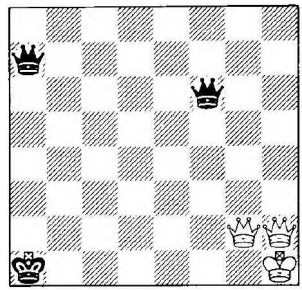
An attempt to remove this blemish

would be as follows: turn the diagram position upside down (the white king is now on a1). Place a black pawn on c7.

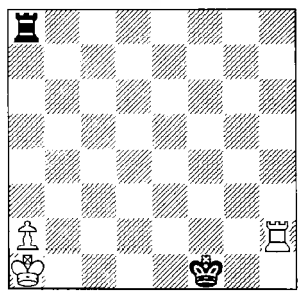


The solution now appears to work properly after 1 ♘g5+ ♔h4 2 ♘f3+ ♔h5 3 ♘g3+ ♔h6. At first it seems that (unfortunately) 4 ♗c6 draws as well as the intended continuation (4 ♘f5+) since the black queen can no longer pick off the g3-knight by 4...♕a6+ 5 ♔b1 ♕b6+ 6 ♔a1 ♕a7+ 7 ♔b1 ♕b8+, when the new pawn prevents the knight's capture (compare the note to 4 ♘c4+). However an idea found by John Emms when editing this second edition seems to salvage the integrity of this would be study: after 4 ♗c6 ♕a6+ 5 ♔b1 ♕b6+ 6 ♔a1, Black wins with 6...♔g6!, putting his king out of the way and giving White the problem of holding on to all his pieces. Despite the available tempo White has no way to protect them all: 7 ♗e4+ ♔f6 8 ♘h5+ ♔e7 9 ♘g3 ♔d8 and Black will win. Thus only 4 ♘f5+ draws (and not 4 ♗c6) and it seems we have achieved a sound study!

As well as destroying certain studies, the database is helping to create new ones; databases can be searched to reveal surprising reciprocal zugzwangs such as the following pair (7.15 and 7.16):



7.15 =/- P



7.16 =/- PD

In both positions, White to move only draws whereas if Black is to move, White wins. One would never suspect that having the move is such a serious disadvantage for either side in the rook and pawn ending. It is too complex for any easy explanation, but readers can get a better idea why it is a reciprocal

zugzwang by consulting John Nunn's *Secrets of Rook Endings*. The four queen position is easier to understand: Black's king is in danger and the black queens cannot move without weakening the defence. White cannot move without allowing Black a chance to simplify. What is paradoxical about the position is the very existence of a mutual zugzwang with this material balance. It is, in fact, unique.

There is a certain beauty to these positions, in some ways similar to the beauty experienced by mathematicians when they come across surprising but true equations in pure mathematics, e.g.

$e^{i\pi} + 1 = 0$

$\pi/4 = 1 - 1/3 + 1/5 - 1/7 + 1/9 - 1/11 + \ldots$

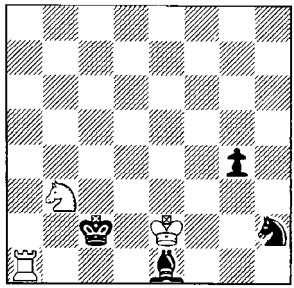
In both cases a sense of wonder is evoked that the 'truth' comes in such unexpected and elegant forms.

Assorted Brilliance

Further 'truth in unexpected and elegant form' is provided in the next two studies by Liburkin.

(see following diagram)

The strategic overview is straightforward: White, the exchange up but with no pawns, needs to win a piece. If the bishop on e1 is captured, Black gains the knight in return, with a draw. White cannot wait, since Black threatens ...♘f3, coordinating his pieces.



7.17 Win FPG(D)
M.S.Liburkin, 4th Prize
Shakhmaty v SSSR 1938 - I

1 ♘d4+ ♔c3 2 ♘b5+! ♔c4!

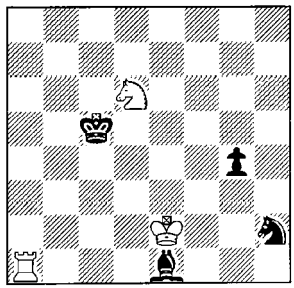
If 2...♔b4?, then White continues 3 ♖b1+ and 4 ♔xe1.

3 ♘d6+!

Not 3 ♘a3+? ♔b3 4 ♔xe1 ♔b2 5 ♘c2 ♘f3+ 6 ♔d1 g3 7 ♔e2 ♘d4+!.

3...♔c5

If 3...♔d5?, 4 ♖d1+!.



4 ♘b7+!!

Some depth is needed to see why the alternative is no good: 4 ♘e4+? ♔d5! 5 ♘f6+ ♔e5! 6 ♘d7+ ♔e6! and the

fun runs out after either 7 ♘f8+ ♔f7! or 7 ♘c5+ ♔d5!.

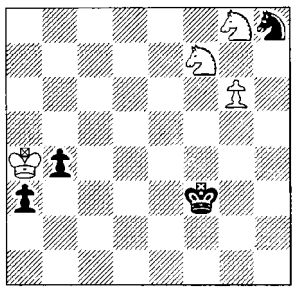
4...♔c6 5 ♘d8+ ♔c7 6 ♘e6+ ♔d7 7 ♘f8+ ♔e7 8 ♘g6+ ♔f7 9 ♘h8+! ♔g7 10 ♖xe1

Only now! The rest is relatively easy:

10...♔xh8 11 ♖h1 g3 12 ♔e3! ♔g7 13 ♔f4 g2 14 ♖g1 ♘f1 15 ♖xg2+

followed by 16 ♖f2 and White wins. Notice the right-angled path of the black king chasing the zigzagging knight in a flowing, systematic manoeuvre.

The next study is difficult to solve, but easy to appreciate!



7.18 Win PGD

M.S.Liburkin, 1950

1st Prize, USSR All-Union Tourney

White wins if he can both promote the g-pawn and stop Black promoting the a-pawn. The natural 1 ♘e5+? fails since it blocks the a1-h8 diagonal: Black draws after 1...♔e4 2 g7 a2!.

1 ♘g5+ ♔f4

It is useful to attack the knight, but 1...♔g4 allows 2 ♘h6+ and 3 g7.

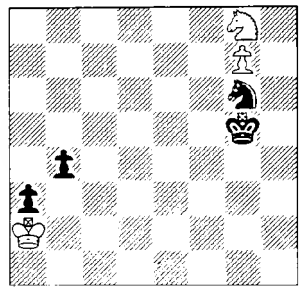
2 g7

Black now has two options, which we shall look at separately:

A) 2...♘g6 3 ♔b3!

Stops the black a-pawn, but the deep point is revealed only after White's next move.

3...♔xg5 4 ♔a2!!



A very surprising zugzwang! White wants to move his knight and promote the g-pawn, but an immediate 4 ♘h6? fails to 4...♘e7. Black must meet white knight moves with ...♘e7, which is why Black cannot now move the knight. The king appears mobile enough, but this is deceptive. After 4...♔f5, 4...♔h5 or 4...♔g4 White can move the knight with check and then promote. Also 4...♔f4 5 ♘f6! ♘e7 6 ♘d5+! deflects the black knight, as does 4...♔h4 5 ♘h6! ♘e7 6 ♘f5+!. The line-up from g8 to g5 is not only geometrical, it contains a subtle mutual zugzwang. White wins since he has a waiting move on the other side of the board (4 ♔a2).

B) 2...♘f7 3 ♘e6+ ♔e5 4 ♔b3!

As above, necessary to stop the a-

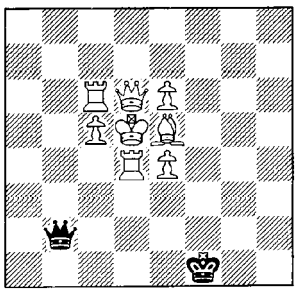
pawn. Guess what? An analogous zugzwang occurs in this variation too...

4...♔xe6 5 ♔a2!!

Readers can work out why Black is now, as some players put it, 'in Volkswagen'. Two crucial variations: 5...♔d6 6 ♘e7! ♘h6 7 ♘f5+! and 5...♔e5 6 ♘f6! ♘h6 7 ♘g4+. In these lines the white knight also manages to prevent the black king getting at the pawn. There is a rare and beautiful unity between the two lines of this study. Such unity is more often encountered in problems, as you will discover later.

Some readers might find the geometry of the above study has greater impact than the paradox. In that case, the valuation would be GPD – who are we to disagree?

And now for something completely different! Just to confuse you, it is Black to play and you must find how White wins:



7.19 Black to move; White wins
R.Kassai, 1959
1st HM, Wiener Schachzeitung

White is a lot of material up but the question is: can he avoid perpetual check? Black must choose the first move carefully since 1...♕b3+? 2 ♖c4 ♕d3+ 3 ♗d4 and it's all over.

1...♕a2+! 2 ♖c4 ♕d2+ 3 ♗d4

The only way to make progress. There follows a weird, circular unwinding manoeuvre:

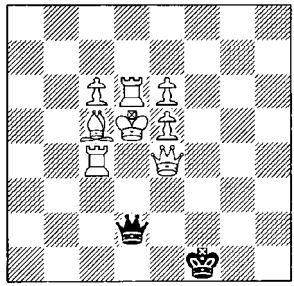
3...♕g5+ 4 ♕e5

Not 4 e5?? ♕g2#.

4...♕d8+ 5 ♖d6 ♕a8+ 6 c6 ♕a5+ 7 ♗c5

If 7 ♖c5 ♕a2+ Black will repeat the pattern.

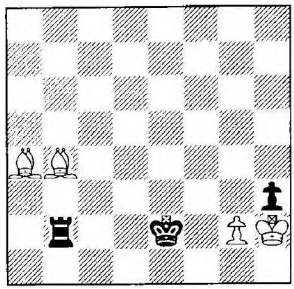
7...♕d2+ 8 ♕d4 ♕g5+ 9 e5 ♕g2+ 10 ♕e4 ♕d2+



11 ♕d3+!!

Giving away the queen with check – some paradox added to the circular flow and geometry. After 11...♕xd3+ 12 ♗d4 ♕f3+ 13 ♔c5 White has a winning position (on material). An entertaining solution, certainly, and also somewhat humorous.

The systematic manoeuvre in the following study by Gorgiev is repeated half a dozen times before a subtle difference ensures White's victory:



7.20 Win GF(D)
T.Gorgiev, 1968
1st Prize, Tidskrift för Schack

As in the Halberstadt, the material balance of two bishops and a pawn versus rook is winning for White. The tactical sequence you are about to see is based on White needing to gain the time to capture the h3-pawn without losing a bishop:

1 ♗c3!

Attacks the rook, thus preventing Black from having the time to play 1...hxg2. 1 ♗a3? ♖a2 2 ♗b5+ ♔d1 would only draw.

1...♖a2 2 ♗b3!

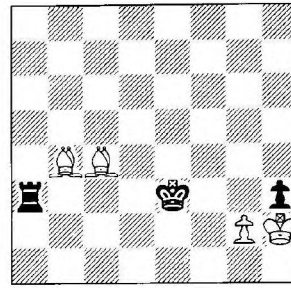
Not 2 ♗b5+ ♔d1 drawing.

2...♖a3 3 ♗c4+ ♔e3!

The best choice. If 3...♔d1, then 4 ♗b4 ♖a4 5 ♗b3+ wins for White, while 3...♔f2 4 ♗d4+ ♔e1 5 gxh3 ♖a4 6 ♗c3+ leads to the same result.

4 ♗b4

The two bishops, the rook and the king have all moved a square up the board. This geometrical 'translation' is now repeated again.



4...♖a4 5 ♗c5+! ♔e4!

Again the best. If 5...♔f4 6 ♗b3 ♖a5 7 ♗d6+ followed by 8 gxh3 wins. 5...♔d2? 6 ♗b3 ♖a5 7 ♗b4+ fails too.

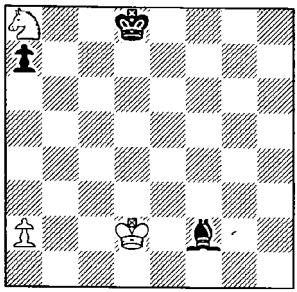
6 ♗b5 ♖a5 7 ♗c6+! ♔e5! 8 ♗b6 ♖a6 9 ♗c7+ ♔e6 10 ♗b7 ♖a7 11 ♗c8+ ♔e7 12 ♗b6!

Breaking the pattern. 12 ♗b8 ♖a8! draws – the edge of the board ending the sequence (13 Bc9+??). However, just in time, a new possibility has emerged.

12...♖a8 13 ♗xh3!

Winning. No paradoxical moves, but breathtaking flow and geometry make this a natural First Prize winner. Only seven pieces, too! The same composer adapted a study by Mattison to produce our next offering. Note the natural game-like position. Consider yourself a chess genius if you can already see the (forced) stalemate in seven moves. Incredible but true – not that you are or are not a chess genius, but that a position like this can produce such a bolt from the blue.

Despite the simplicity of the following position, White is in serious trouble because of the trapped knight.



7.21 Draw PD(F)(G)
T.Gorgiev (after H.Mattison)
Shakhmaty v SSSR, 1963

1 a4!

With the idea 1...♔c8 2 a5 ♔b7 3 ♘b6! ♗xb6 4 axb6 axb6 5 ♔c3 drawing. 1 ♔e2? ♗c5 2 a4 ♔c8 3 a5 ♔b7 4 ♘b6 ♗xb6 5 axb6 axb6 6 ♔d3 ♔a6 7 ♔c4 ♔a5 wins for Black. Because of the subtle difference between these two lines, the order of White's first two moves is forced.

1...a5!

Avoiding the above line and threatening to round up the knight. The next move has a deep point (apart from threatening the bishop!) – revealed only five moves later.

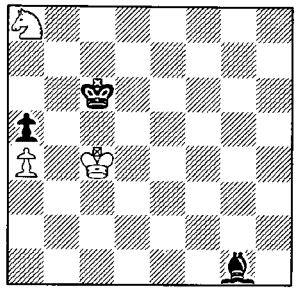
2 ♔e2! ♗g1

2...♗a7 leads to similar play. 2...♗d4 or 2...♗c5? lose time as the white king advances, e.g. 2...♗c5? 3 ♔d3 ♔d7 (3...♔c8 4 ♔c4!) 4 ♔c4 ♔c6 5 ♘c7!. But what has White gained by attacking the bishop, given his next move is just to advance the king anyway?

3 ♔d3 ♔d7!

If 3...♔c8?, then 4 ♔c4 ♔b7 5 ♔b5 draws easily.

4 ♔c4 ♔c6



Now White appears lost. If 5 ♔b3? ♗e3 6 ♔c4 ♗f2 7 ♔b3 ♔b7 8 ♔c4 ♔xa8 9 ♔b5 ♗e1 Black wins. 'Paradox' comes to the rescue:

5 ♘c7!! ♔xc7 6 ♔b5 ♗b6

The real point of 2 ♔e2! was to prevent the move 6...♗e1! in this position.

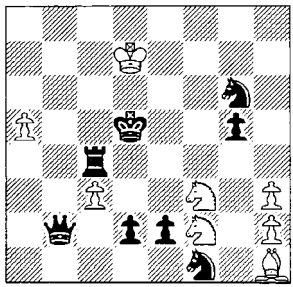
7 ♔a6! ♔c6

Stalemate! A splendid study with a surprise finish, subtle move order and depth, and a flowing white king march up the f1-a6 diagonal to achieve self-immobilization.

Notice, too, the way that all the pieces have either moved into position or been captured during the play. Critics and composers often seek this feature in studies. It is considered a big plus when none of the pieces finish on the same squares that they started. Why should this be so? Our elements give a clear rationale for this criterion. The point of the final position comes as more of a surprise, since none of the preconditions were present at the start

– an increase in paradox. Also, the movement of all the pieces tends to improve the flow.

The next study has the honour of being placed 2545th in Kasparian's book *Domination in 2545 Endgame Studies*. At the end of the book Kasparian extends the meaning of 'domination' to include a mauling of the opponent's forces. The sequence of knight checks (designed to destroy the powerful black army) exhibits sensational smooth flow:



7.22 Win FG(P)
I.Chuiko
Shakhmaty v SSSR 1963

1 ♘d4+ ♔e5

This is about the only choice Black gets in this study, but it is not much of a choice since 1...♔c5 2 ♘d3 is mate!

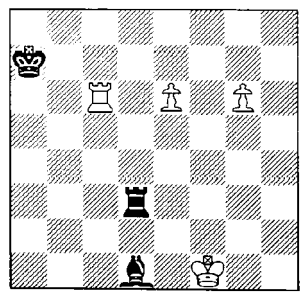
2 ♘g4+ ♔f4 3 ♘e6+ ♔f5 4 ♘g7+ ♔f4 5 ♘h5+ ♔f5 6 ♘h6+ ♔e5 7 ♘f7+ ♔f5 8 ♘d6+ ♔e5 9 ♘xc4+

One down, several to go! With the rook gone, White goes into reverse gear:

9...♔f5 10 ♘d6+ ♔e5 11 ♘f7+ ♔f5 12 ♘h6+ ♔e5 13 ♘g4+ ♔f5 14 ♘g7+ ♔f4 15 ♘e6+ ♔f5 16 ♘d4+ ♔f4 17 ♘xe2+ ♔f5 18 ♘d4+ ♔f4 19 ♘e6+ ♔f5 20 ♘g7+ ♔f4 21 ♘h5+ ♔f5 22 ♘h6+ ♔e5 23 ♘f7+ ♔f5 24 ♘d6+ ♔e5 25 ♘c4+ ♔f5 26 ♘xb2

White has reached a materially winning position! It is easy to lose one's sense of direction in the midst of all these knight switchbacks. Looking at the way the black king has simply obeyed the cavalry's every whim, it is more a case of 'humiliation' than domination. A new book will probably be needed to establish this new term – *Humiliation in 3669 Endgame Studies* might make a good title!

The next two studies are by the brilliant Pal Benko. While as an over-the-board grandmaster he achieved a great deal, as a study composer he has in my opinion achieved even more and should be considered amongst the absolute elite.



7.23 Win DPG(F)
Pal Benko, 1st Prize
Magyar Sakkélet 1977

Which pawn should White advance? A difficult 'depth choice' must be made...

1 e7!

After 1 g7? ♖g3 2 e7 ♗h5 there is a spectacular Novotny that enables White to promote after 3 ♖g6! ♖xg6 (3...♗xg6? 4 ♔f2! wins) 4 e8♕. However Black just manages to survive after 4...♖f6+ 5 ♔e1 ♗xe8 6 g8♕ ♗d7!.

1...♖e3

The alternative leads to a lost rook ending after 1...♖f3+ 2 ♔e1 ♖e3+ 3 ♔xd1 ♖xe7 4 ♖c5 ♔b6 5 ♖g5 ♖g7 6 ♔e2 ♔c6 7 ♔f3 ♔d6 8 ♔g4 ♔e7 9 ♔h5 ♔f8 10 ♔h6.

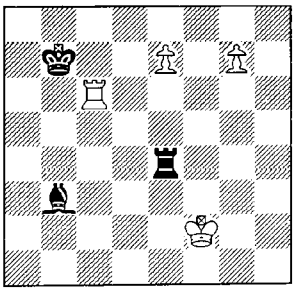
2 g7 ♗b3 3 ♖c7+!

The immediate Novotny fails after 3 ♖e6? ♖xe6 4 g8♕ ♗c4+! 5 ♔f2 ♖e2+ 6 ♔f3 ♗xg8 7 ♔xe2 ♗f7.

3...♔a6

If 3...♔b6, 4 ♖c3! ♖xe7 5 ♖xb3+ wins since it is check. Similarly going to the b-file with 3...♔b8 loses after 4 ♖c3.

4 ♔f2 ♖e4 5 ♖c6+ ♔b7

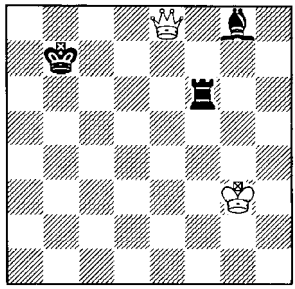


Only now does White hit Black with a killer Novotny:

6 ♖e6!! ♖xe6

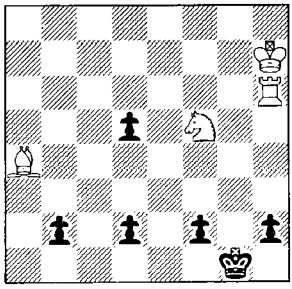
If 6...♗xe6, 7 e8♕ wins more easily.

7 g8♕ ♖f6+ 8 ♔g3 ♗xg8 9 e8♕



This time Black cannot escape the loss of either the bishop or rook, after which White wins on material. A really fine study involving intricate depth choices, Novotny geometry and paradox (rook sacrifices). The flow is also quite good, because the side variations are short, sharp and easy to understand.

The second Benko study is light hearted fun:



7.24 Win F

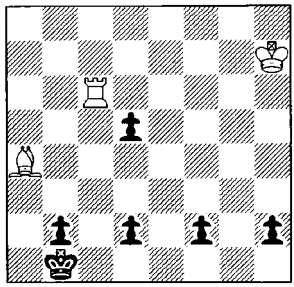
Pal Benko

EG 1998

1 ♖g6+ ♔h1 2 ♘g3+ ♔g2 3 ♘f1+! ♔xf1

Heading for the countryside with 3...♔f3 4 ♘xh2+ ♔e3 is no good since White now controls the pawns after 5 ♖b6. The alternatives 3...♔h3 4 ♗d7+ ♔h4 5 ♖g4+ ♔h3 6 ♔h6 h1♕ 7 ♖g1+ ♔h4 8 ♖xh1 and 3...♔h1 4 ♗d1 lead to quicker mates.

4 ♗b5+ ♔e1 5 ♖e6+ ♔d1 6 ♗a4+ ♔c1 7 ♖c6+ ♔b1



The black king has traversed the board to reach the b1-square and now starts heading back again in a straight line to h1.

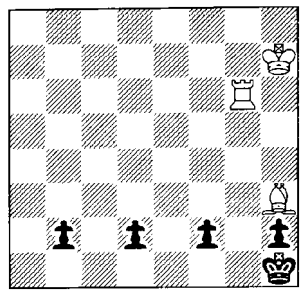
8 ♗c2+ ♔c1 9 ♗f5+ ♔d1 10 ♗g4+ ♔e1 11 ♖e6+ ♔f1 12 ♗h3+ ♔g1 13 ♖g6+ ♔h1

Now the journey continues back again to b1...

14 ♗g2+ ♔g1 15 ♗xd5+ ♔f1 16 ♗c4+ ♔e1 17 ♖e6+ ♔d1 18 ♗b3+ ♔c1 19 ♖c6+ ♔b1

You guessed it... the king now goes back to h1, where it finally meets its fate.

20 ♗c2+ ♔c1 21 ♗f5+ ♔d1 22 ♗g4+ ♔e1 23 ♖e6+ ♔f1 24 ♗h3+ ♔g1 25 ♖g6+ ♔h1



26 ♗d7!

Possible now that the d5-pawn is no longer there.

26...f1♕ 27 ♗c6+ ♕g2 28 ♖xg2 b1♕+ 29 ♖g6+ ♕e4 30 ♗xe4#

Aesthetically this study is mainly about flow – 'extreme flow', which is sufficient in itself to make it worthwhile. There is also some extreme geometry in the path of the black king, back and forth along the line of the first rank.

The 'mechanism' or basic idea behind this study was known before this version, so this is not an entirely original study but can be considered as an extension on what went before. There is an artificial starting position with all the advanced black pawns, but it is a small price to pay for the resulting journey of the black king, which is quite extraordinary.

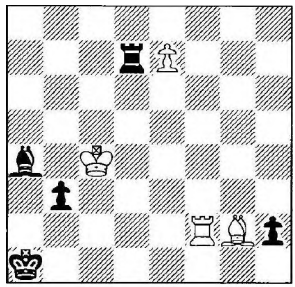
The Study of the Year

Many people may not realise that FIDE has an organization called the Permanent Commission for Chess Compositions (PCCC). This is a rather successful body that operates in a virtually inde-

pendent fashion from 'big' FIDE and is not as riddled with political problems as its parent. Since 1958 it has staged an annual congress that discusses methods of furthering the aims and popularity of all types of chess composition. It organizes a regular world chess composing tourney and the congress itself now hosts as one of its main events the World Chess Solving Championship for national teams and individuals. It also organizes the production of the FIDE Album, a composing equivalent of *Chess Informant* that contains a selection of the best problems published during a three-year period.

The PCCC awards titles to composers (FM, IM and, rarely, GM) on the basis of the number of their works selected for publication in the Albums; solvers are awarded titles on the basis of performances in the many rated tournaments that are blossoming around the world (an annual British Solving Championship has been mounted by the British Chess Problem Society since 1979).

The Study of the Year is an initiative of the Subcommittee for Studies of the PCCC. The selected study is not necessarily the 'best' one but rather one that would appeal to over the board players with the aim of promoting the art among a broader public. Having engaged in many such evangelistic activities before we could warn that this is bound to be at best a hit and miss exercise – it is quite hard to guess what will appeal to a large group of non-experts. We will consider three examples that have been awarded the Study of the Year accolade, the second of which we have discovered has a serious flaw but we will include it anyway as part of the discussion on the aesthetics of these studies.



7.25 Win FPG
Grigori Slepian
Szachista 1995

White's first move is easy:

1 e8♕ ♖c7+ 2 ♗c6

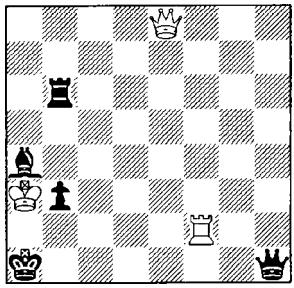
This is a kind of defensive Novotny – it interferes simultaneously with the attacks on king and queen.

2...♖xc6+ 3 ♔b4 ♖b6+

Not 3...h1♕? 4 ♕e5+ and mates, but now if 4 ♔xa4? h1♕ 5 ♕e5+ b2 and the rook protects the pawn.

Another challenging defensive idea is 3...b2 after which White must find 4 ♖f1+! b1♕+ 5 ♖xb1+ ♔xb1 6 ♕e4+! ♔b2 7 ♕e5+! (7 ♔xa4? ♖c4+ 8 ♕xc4 h1♕ is not good enough) 7...♔b1 (7...♔c1 8 ♔xa4 h1♕ 9 ♕a1+) 8 ♔a3! ♖b6 9 ♕e4+ ♔c1 10 ♔xa4. This is winning since 10...♖h6 allows 11 ♕f4+.

4 ♔a3! h1♕



5 ♕h8+! b2!

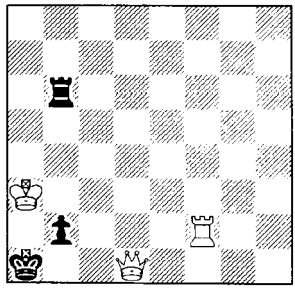
Avoiding 5...♕xh8? 6 ♖f1#, but also preparing a brilliant escape attempt.

6 ♕xh1+ ♗d1

If 6...b1♕ 7 ♖a2#, but 6...b1♘+ 7 ♔xa4 is tougher, with White able eventually to outflank the rook's suicide attempts by getting to a spot where the checks can land only on squares guarded by the queen, e.g. 7...♖b4+ 8 ♔a5 ♖a4+ 9 ♔b6 ♖b4+ 10 ♔c5 ♖c4+ 11 ♔d6 ♖d4+ 12 ♔e5.

7 ♖xb2!

Instead 7 ♕xd1+? would throw away exactly that outflanking capability and result in an immediate draw:



After 7...b1♘+!! (not 7...b1♕ because of 8 ♖a2#) and persistent rook checking along the b-file (on h1 the queen covered b7 whereas on d1 it does not cover any square to prevent the perpetual sacrifice), for example 8 ♔a4 ♖b4+ 9 ♔a5 ♖b5+ 10 ♔a6 ♖b6+ and so on. The stalemate trick hinges on having a pinned knight on b1.

In the meantime, back in the main line (after 7 ♖xb2) Black is facing a threat of immediate mate.

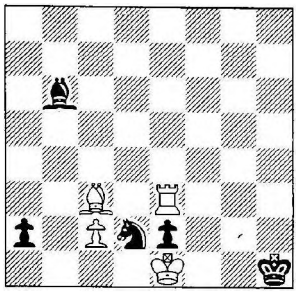
7...♖b3+!

Black plays a final trump card. Capturing the rook would be stalemate – this time with a pinned bishop – but does declining to capture not mean the loss of White's rook and a draw on material?

8 ♔a4! ♖d3+ 9 ♖b3!

No! This clever move echoing White's second move guarantees that White wins on material.

This got the Study of the Year off to a good start in our view. The position is light and reasonably natural and the story is one of a really good fight, showing crisp turbulent flow, with a satisfying dollop of paradox. There was also some geometry worth remembering both in the method used to defeat Black's self-stalemate attempt with 6...b1♘+ and in the defensive Novotny on move two. The stalemates (and stalemate avoidances) with both pinned knight and pinned bishop created a very pleasing effect. Perhaps the solution is a touch on the easy side, but still there are plenty of clever blows and counter-blows.



7.26 Win GD(P)
Oleg Pervakov, 1st Prize
B.Gusev JT 1994-96

White has a winning material advantage, but Black's counterplay is very strong. The rook is threatened and we have to do some careful analytical work determining its destination on move one:

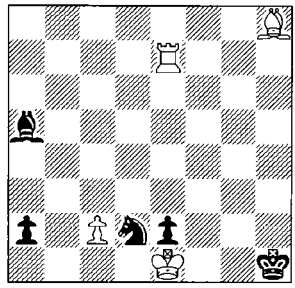
1 ♖g3? ♘e4 leads to a catastrophe for White. 1 ♖d3? ♗a5! 2 ♗b2 ♘b3+ leads to the win of the exchange after 3 ♗xe2 ♘c1+ and the resulting ending is a comfortable draw for Black even though he loses the pawn: 4 ♔e3 ♘xd3 5 ♔xd3 ♔g2 6 ♔c4 ♔f3 7 ♔b3 ♔e4 8 ♔xa2 ♔d5 etc. Moving the rook away from the scene of action preserves its skin but allows Black's counterattack to succeed: 1 ♖h3+? ♔g2 2 ♖h5 ♗d4!.

Thus we look at vertical rook moves, and we soon see that the choice is reduced to 1 ♖e7 or 1 ♖e8, because 1 ♖e5 allows an immediate fork on f3, while 1 ♖e6 allows Black to draw with 1...♘f3+ 2 ♔xe2 ♘d4+!. So how about 1 ♖e8? This turns out to be an error of the negative depth variety, because the black bishop can control h8 – see note to Black's first move below.

1 ♖e7! ♗a5

If 1...♘b3 2 cxb3 ♗a5, then 3 ♔f2! wins. Note that had White played 1 ♖e8? Black could continue 3...♗xc3 at this point, completely turning the tables.

2 ♗h8!



White had the same type of calculation to perform on this long bishop move as he had on the initial rook move, but this time the longer choice prevailed. Any other move along the diagonal would have lost the bishop to a discovered check by the knight, except 2 ♗g7, and this would be mistaken owing to the resulting inability of the rook to check on h7.

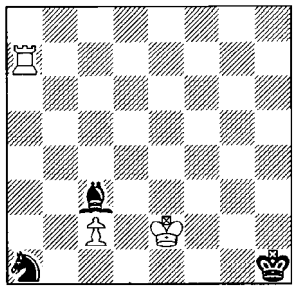
2...a1♕+

If 2...♘e4+, 3 ♔xe2 ♘c3+ 4 ♔f3! a1♕ 5 ♖h7+ ♔g1 6 ♗d4+ and White mates. Or if here 3...♗c3, then 4 ♗xc3 ♘xc3+ 5 ♔f2 ♘d1+ 6 ♔g3! ♘e3 7 ♖a7. The other move, 2...♘b3+, will transpose to the main line.

3 ♗xa1 ♘b3+ 4 ♔xe2 ♘xa1 5 ♖a7!

A winning result for White hinges on the fact that Black will have to give up the bishop, rather than the knight, for the pawn, and that the resulting rook versus knight ending is a win for White, because he can always ensure that the knight is cut off from the protection of the king.

5...♗c3



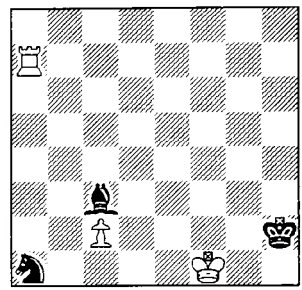
6 ♔f1

Sadly, it turns out that there is an alternative win in this position by 6 ♔d3!, after which even 6...♘xc2 7 ♔xc3 ♘e3 fails to draw since according to the database 8 ♔e3 (the only winning move) wins in a further 28 moves. It is thus unnecessary to rely on the clever zugzwang manoeuvre found by the composer.

Since this study was composed, all six-man (kings included in the count) endings have been exhaustively analysed by computers and can be looked up in databases (inroads are also being made into seven-man endings yielding fascinating results). The cook greatly reduces the value of this study, but we can still consider its aesthetics in comparison with the other two Study of the Year winners we are presenting.

6...♔h2

6...♗e5 7 ♖a5! ♘xc2 8 ♖xe5 ♔h2 9 ♖e2+ ♔h1 10 ♔f2 is one winning method.



7 ♖a2!

At least this stylish winning move is unique, according to the database (but if this move is to be the culmination of a sound study it would need a new introduction). The position is now one of mutual zugzwang. If 7...♔h1, 8 ♖a3 ♗e5 9 ♖a5 wins.

7...♗e5 8 c3+! ♔g3

Or 8...♔h1 9 ♖a5 again.

9 ♖xa1 ♗xc3

Otherwise it is a prosaic win on material.

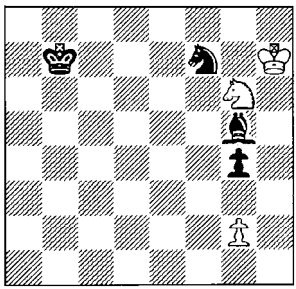
10 ♖a3

Winning the bishop and the game.

This study does not seem to us as convincing as the preceding one as suitable for the Study of the Year, even before considering the unsoundness due to the move six cook. The good points include the unusual geometric parallelism between the selection of the

white rook and white bishop moves and the depth involved in these choices. The original coup de grâce of the final paradoxical zugzwang was charming, but the cook destroys the relevance of this. The flow is also poor, being undermined by the trickiness of the analysis of the alternatives on move one. It is also a pity that the reciprocity of the zugzwang is not illustrated by a 'try' resulting in the position after 7 ♖a2! but with White, instead of Black, to play.

Our third Study of the Year is surely destined to be very widely quoted in the future:



7.27 Draw PF(D)
Yuri Bazlov, 5th Prize
Nunn 50th Jubilee Tourney 2005

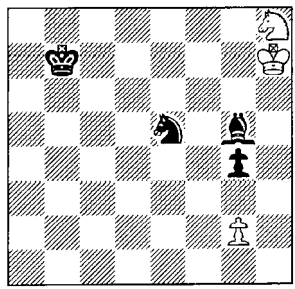
White is a piece down and the presence of a black pawn ensures that the material balance is potentially winning for Black. White needs a radical solution, as the pedestrian 1 ♔g7 ♘d6 2 ♘e5 g3 fails to achieve much. Black can secure his pawn easily and, as long as he avoids the exchange of knights together with the return of White's king to f1, which reaches a 'book' draw, it should be possible to win by gradually improving his position.

1 ♘h8!

Most moves into a corner square carry at least a little frisson of pleasure; because of the strong whiff of paradox, when it is a knight this becomes pronounced.

1...♘e5

Black tries to keep the white king at bay by controlling g6. Despite the remoteness of the white king after 1...♘xh8 2 ♔xh8 ♔c6 3 ♔g7 ♔d5, White is still able to reach the drawing haven by gaining tempi with attacks on bishop and pawn: 4 ♔g6 ♗e3 (Black would like to guard g3 in anticipation of a further attack on the pawn, but 4...♗h4 or 4...♗f4 allow 5 ♔h5 or 5 ♔f5 drawing immediately) 5 ♔f5 g3 6 ♔g4 ♗f2 7 ♔f3 ♔d4 8 ♔e2 after which Black cannot dislodge the white king for fear of stalemate.



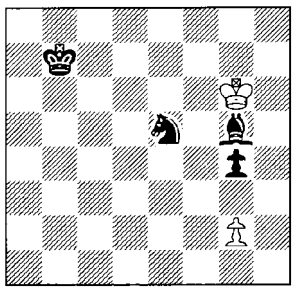
2 ♘f7!!

A real thunderbolt! Already a piece down in an endgame and White offers

another! It appears that the g6-square is precious indeed.

2...♘xf7 3 ♔g6 ♘e5+!

If 3...♔c6, 4 ♔xf7 ♔d5 5 ♔g6 transposes to the note after Black's first.



4 ♔f5!!

Surely this is one of the most paradoxical of all moves made or invented! White is two pieces down and yet his best move is to refuse to capture the bishop! Indeed 4 ♔xg5? loses after 4...♔c6! 5 ♔f4 ♔d6! (with the diagonal opposition) 6 ♔e4 (6 ♔f5 ♔d5 wins) 6...♔e6 7 ♔f4 ♔f6 8 g3 ♔e6 9 ♔g5 ♔d5 10 ♔f5 ♔d4 11 ♔f4 ♔d3! and the g3-pawn falls.

4...♘f7

Black can do no better than repeat moves. If he loses the knight, then it is a clear draw as shown above. On the other hand, if the knight saves himself by, for example, 4...♘d3, then 5 ♔xg5 regains the bishop while also ensuring that the pawn is lost. The refinement 4...♘f3 fails to the calm 5 ♔xg4 and again the magic of the position enables White to regain sufficient material with his agile king to achieve a draw.

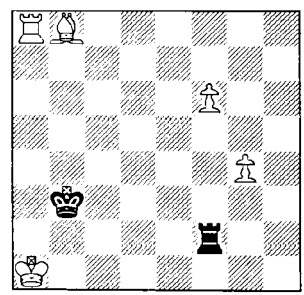
5 ♔g6 ♘e5+ 6 ♔f5

Its a draw. A short study but with adequate flow to show off its outstanding paradoxicality. The relative simplicity of the tries and variations, which are easy to follow, is the important ingredient that, by contrast with the Pervakov, ensures that the beauty of the star moves in this one-act drama is not undermined. All in all, this is a well-nigh perfect choice for the Study of the Year.

Tightness and Overall Effect

Generally our elements apply to single moves or to a limited number of moves, but sometimes it is necessary to consider the entire study as a single move set. This is when there is some special 'overall effect' which may well prove to be the 'point' of the work.

The next example will help to demonstrate exactly what we mean by this.



7.28 Draw FG(P)
T.Gorgiev
1st HM, Shakhmaty v SSSR 1939

It also serves to illustrate the notion

of 'tightness' (or 'crispness') which relates to the impact of flow. Unfortunately the notion of tightness is difficult to define and we will only be able to provide you with a not-at-all tight grasp of it...

1 ♖a3+

One can deduce this is forced by a process of elimination. No other move deals with the deadly threat of 1...♖f1#.

1...♔xa3 2 ♔b1

Forced, by the same logic.

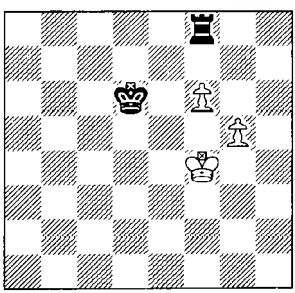
2...♖b2+ 3 ♔c1 ♖xb8 4 g5

If 4 f7, then 4...♖f8! or 4 ♔d2? ♔b4 5 g5 ♔c5 6 g6 ♔d6!.

4...♖f8!

To stop 5 f7. Now the white king must march towards the pawns, but precision is needed: 5 ♔c2? ♔b4 6 ♔d3 ♔c5 7 ♔e4 ♔d6 8 ♔f5 ♖a8 is winning for Black, as can be seen in the note to White's eighth move.

5 ♔d2 ♔b4 6 ♔e3 ♔c5 7 ♔f4 ♔d6



8 g6!

If 8 ♔f5, then 8...♖a8 9 ♔g6 (alternatively, 9 g6 ♖a5+ 10 ♔g4 ♔e6 11 f7 ♔e7) 9...♔e6 10 ♔g7 (10 f7 ♖f8) 10...♖a7+ 11 ♔g8 ♖b7! wins.

8...♔e6

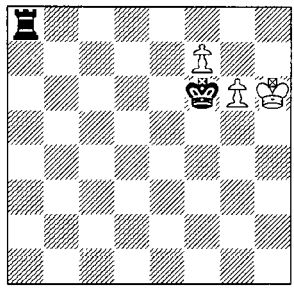
8...♖xf6+ 9 ♔g5 ♔e7 10 g7 ♖f1 11 g8♘+ draws.

9 ♔g5 ♖a8

After 9...♖xf6 10 g7 White has no problems: 10...♖f1? 11 g8♕+ wins while 10...♔f7 11 g8♕+ is a draw.

10 f7 ♔e7 11 ♔h6 ♔f6

The hardest test for White.



12 ♔h7 ♖b8 13 f8♕+ ♖xf8 14 g7 ♖f7 15 ♔h8 ♖xg7 Stalemate

So what is so special about that? No big surprises, no paradoxical moves, no particularly difficult or deep moves. The introduction seems a bit violent. What is the point of it all? One has to consider the study as a whole. It is a miniature in which White sacrifices a rook, bishop and two pawns and starts in one corner, yet stalemates his king in the opposite corner! This is a great achievement, with only the black rook controlling the play. Note the precise route of the white king: ♔a1-b1-c1-d2-e3-f4-g5-h6-h7-h8. The way these moves are compelled creates an impressive flow across the board. The corner-to-corner effect is graphically

geometrical, but it is the flow and overall effect that make this study stand out. While no single move is unusual, surprising or paradoxical, the overall achievement of the study could be considered any of those three.

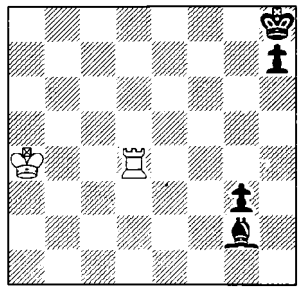
It should be admitted, though, that the corner-to-corner effect does depend on a certain arbitrariness in what is considered to be the main line of play. There is not much scope for disagreement over the first few moves, but towards the end of the study a lot depends on the choice of the composer as to what is the main line. There are no cast-iron rules to determine which line should be given priority. We cannot prevent you from considering any sideline you like as the main line, if you really want to. However, sometimes the analysis is 'tighter' than at other times, and the final few moves in the above study are definitely a little bit 'loose', which is a weakness. The tighter the better!

Real 'crispness' depends upon the absence of lengthy supporting analysis, which tends to undermine the flow. Given the constraints of composing an artistic study, this quality is fairly rare ('Crispness comes but once a year').

Complete Studies

By 'complete' we mean simply that a study shows all four of our elements: paradox, depth, geometry and flow. As pointed out earlier, this in no way implies that the work is 'better' than another which, say, shows only two of them. However, there is a certain all-round strength and balance to studies with a 'bit of everything' that makes them well worth a look. You have already seen a few examples, for instance the Korolkov at the start of this chapter and the Korolkov/Mitrofanov from the geometry section. This section will round off the show, and should leave you raring to have a go at the exercises!

Our first example is by Dutchman W.Korteling:



7.29 Draw FPDG
W.Korteling
Tidskrift KNSB 1942

With his king far away from the action, White has real problems to solve here. He starts with a surprising check – surprising since it is not usually a good idea to drive your opponent's king to a more active position in the endgame.

1 ♖d8+!

A deep move, the purpose of which is to place the black king on the g-file. Not good enough is the immediate 1 ♖g4 ♗c6+! 2 ♔b4 g2 when Black is winning.

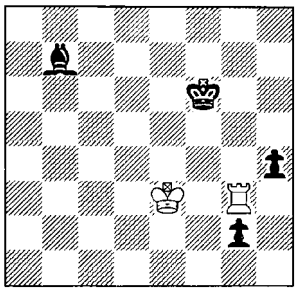
1...♔g7 2 ♖d3 ♗c6+ 3 ♔b4 g2 4 ♖g3+

This is why White first played 1 ♖d8+. He has wasted one move with the rook but Black has had to make two moves with the king. These two king moves seem to help Black become more active, but in fact they prove irrelevant.

4...♔f6 5 ♔c5

This move gains what turns out to be a crucial tempo. The play flows inevitably towards its paradoxical finish...

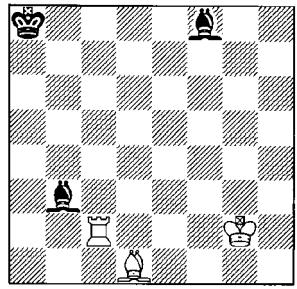
5...♗b7 6 ♔d4 h5 7 ♔e3 h4



8 ♔f2!! hxg3+ 9 ♔g1!

Either achieving a stalemate or the win of both black pawns should the bishop 'undefend' g2. The black king is a tempo too slow defending the g3-pawn. Everything hangs together very neatly in this study, especially the white king's unique route from one side of the board to the other.

In *Tactical Chess Endings* John Nunn describes the next work as one of his personal favourites. We will also give the position, since it displays all our elements with great power...



7.30 Win GPDF

R.Missiaen, 1974

2nd Prize, Schakend Nederland

The 'strategy' is clear enough. The material balance is drawn in general, so White must exploit the dynamics of the position to win a bishop.

1 ♗f3+

After 1 ♖c8+? ♔b7 2 ♖xf8 ♗xd1 Black draws.

1...♔a7

After 1...♔b8, the reply 2 ♖b2 nets a bishop immediately. Now White must choose which bishop to attack.

2 ♖c3!

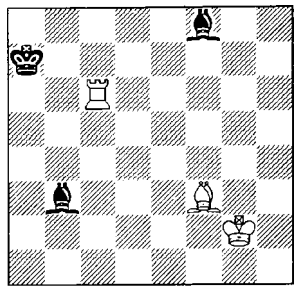
After 2 ♖c8? ♗d6! Black starts to coordinate his pieces. The bishop on b3 has an apparently wide choice of squares, but...

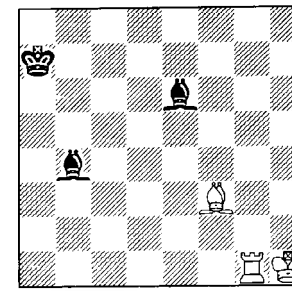
2...♗e6!

Domination at work. The alternatives 2...♗a2 and 2...♗a4 lose to 3 ♖c8 and 4 ♖a8+. 2...♗f7 3 ♖c7+ and 2...♗g8 3 ♖c8 are the other possibilities.

3 ♖c6 ♗b3!

3...♗f5? 4 ♖f6. Now comes a move of exceptional depth and paradox.





4 ♔h1!!

Incredibly this moves creates a position of reciprocal zugzwang! The main line will show why White's king is better on h1 than g2.

4...♗b4

It is easy to see why the black king cannot move. The light-squared bishop is dominated (see the note to Black's second move) and the dark-squared bishop has nowhere better than b4, for example 4...♗a3 5 ♖c3 or 4...♗g7 5 ♖c7+.

5 ♖c1!

Not good enough is 5 ♖c7+ ♔a6 6 ♖b7 ♔a5!, holding on. Now the threat is 6 ♖b1.

5...♗g8

If the dark-squared bishop moves, then White picks off the other bishop, e.g. 5...♗d6 6 ♖a1+ ♔b6 7 ♖b1. After 5...♗e6, 6 ♖c7+ does the job. Now the 'point' of 4 ♔h1!! is revealed – it opens the g-file.

6 ♖g1! ♗e6

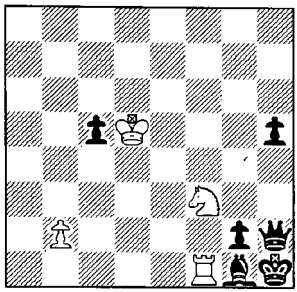
If now 6...♗c4 then the reply 7 ♖g4 'kebabs' the bishops along the fourth rank.

7 ♖g7+ ♔b6 8 ♖g6

The 'double domination' of the bishops involves very rich geometry with the rook working along almost every rank and file. The reciprocal zugzwang is a real shocker (depth and paradox) – the sort of move that would probably never be found over the board with the clock ticking. There is some smooth flow but, unlike the other elements, nothing exceptional. A sequence of rare beauty!

Although a large number of ideas have been 'used up' by earlier composers, there is still great scope for creativity in study composition. A number of modern studies involve enormously complex ideas, where a high level of analytical skill is necessary to understand the play. Many of the selections for this book conform to our general policy of not obscuring aesthetic elements with difficult play. In other words we have tried to give relatively clear, 'user-friendly' studies. For these reasons we have resorted to a number of older classics. One of the best of the 'new generation' of chess artists is the

very talented David Gurgenidze, and we finish off this section with one of his joint compositions:



7.31 Win DPGF
D.Gurgenidze and L.Mitrofanov
1st Prize, Molodoi Leninets 1982

White is material down but Black is tied up defending his king. After any move of the *en prise* rook along the first rank Black will only have pawn moses available. However, you have to see Black's defence to have any hope of finding White's deep and precise first move.

1 ♖b1!!

Even Nimzowitsch never played as mysterious a rook move as this. The point is revealed only on move six.

1...c4

Black's plan is to run himself out of pawn moves and then set up a stalemate defence.

2 ♗c6!

The start of an even more mysterious king march. His majesty needs to get to a8. Well, obviously!

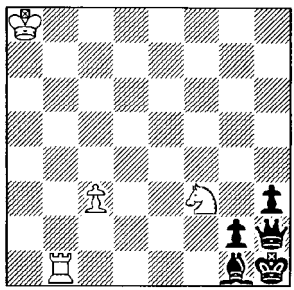
2...h4 3 ♔b7! h3 4 ♔a8!

4 ♔c6? would only draw after 4...c3 5 bxc3 ♕c7+ 6 ♔xc7 h2!.

4...c3

The immediate 4...♕b8+ 5 ♔xb8 h2 leads to mate: 6 ♘g5 c3 7 ♘e4 c2 8 ♘g3#.

5 bxc3



5...♕b8+

It is clear that the white king needed to avoid giving the black queen a safe check. But now the point of the mysterious rook move and king march is revealed: the white rook can swing across with tempo.

6 ♖xb8! h2

If 6...♗f2, 7 ♖h8 wins or 6...♗d4 7 cxd4 h2 8 ♖b1+ and the d-pawn will be decisive.

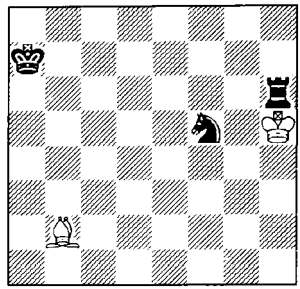
7 ♖h8! ♗f2 8 ♖xh2#

Deep stuff involving some beautiful 'hiding' moves. Notice the interesting path of the white rook f1-b1-b8-h8-h2, the good use made of the corners and the mysterious flowing king march up the long diagonal. The White moves were most unexpected, yet involved no sacrifice – a more sophisticated form of paradox in many ways.

Exercises

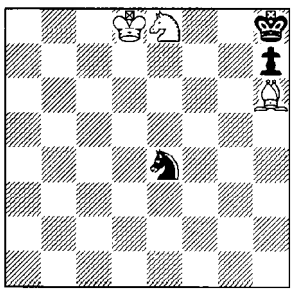
Although it is useful simply to play over the solutions to studies (it will stimulate imagination and help you pick up patterns), actually solving them is an even better form of training. Sometimes players are put off by the difficulty. To misquote G.K.Chesterton, it is not that studies have been tried and found wanting, they have been found difficult and left untried! We hope readers will have a go at the following exercises, since they will greatly enjoy finding the solutions for themselves. You can check you got them right at the back of the book.

White is to play in all positions.



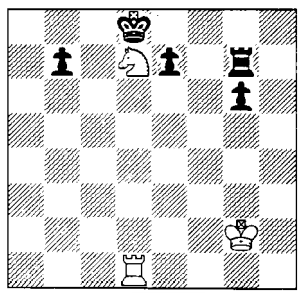
7.33 Draw FPG

Finish of study by
J.de Villeneuve-Esclapon
1st Prize, Schweizerische
Schachzeitung 1923



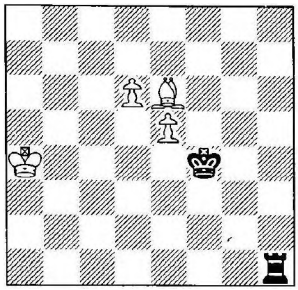
7.32 Win PDG

T.Gorgiev, 1938
1st HM, VCSPS Chess Club Tourney

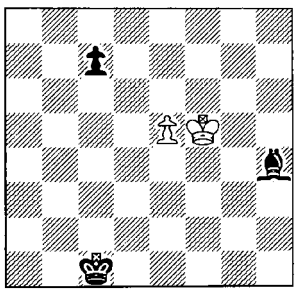


7.34 Win GP(F)

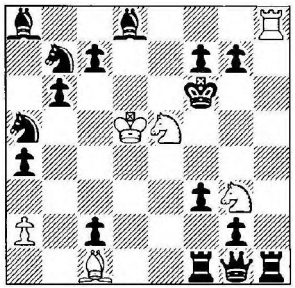
L.Kubbel, 1938
2nd Prize, Chigorin Memorial Tourney



7.35 Win PG
L.Prokeš, 1st Prize
I.Louma Tourney 1941



7.36 Draw PFG
L.Mitrofanov, 1st Prize
5-man Tourney 1976



7.37 Draw FG(P)
H.Meyer
A Complete Guide to the Game of Chess, 1882

Chapter Eight

Art for Art's Sake: The Delights of Chess Problems

'It is easy to be heavy, hard to be light.'
G.K.Chesterton

'Problems worthy of attack prove their worth by hitting back.'
Piet Hein

'What is man before beauty cajoles from him a delight in things for their own sake, or the serenity of form tempers the savagery of life?'
Friedrich von Schiller

The only difference between an orthodox chess problem and a chess position is that the problem always contains a stipulation that White must force mate in a fixed number of moves. This innocent little feature gives composers the chance to thrill their solvers with an enormous range of ideas and effects.

Take Mate in Two, for example. A naïve player might expect that the stipulation is just too limiting. White plays a move, and, however Black replies, it is mate next move. Sounds pretty straightforward? Read on and you will discover just how wrong such an expectation would be. Mate in Two and the game of chess are two very different domains.

Unlike the other chapters in this book, this one is written as much for the problemist as for the player. People with no experience of problems should still be able to follow it, but the going will not be light! We will be looking at the three main schools of problem composition (Bohemian, Logical and Strategic), relating their aspirations to our elements, and exploring some of their aesthetic possibilities. Later, we

will also take a brief look at conventions and construction. We hope and fully expect you to find some of the final examples well worth waiting for.

Composing Directions

Historically speaking, there are three major directions, or schools, of composition which are clearly discernible: the Bohemians, the Logical (or New German) School, and the Strategic School. Numerically, this sequence also represents an ascending order in terms of output.

Before we look at some examples of these three major traditions, it is necessary to explain the problemist's special use of the word 'strategy'. This usage is a little odd, because its meaning is actually quite close to 'tactics'! To a problemist, 'strategy' has to do with a device or mechanism, usually geometric in nature, by which a move-set may be categorized or explained. Any of the problems included in Chapter Four would be examples of good strategic content. A problem which contained very few such devices, or in which they did not form a coherent idea, would be regarded as relatively lacking in strategy.

Bohemian Problems

The Bohemian school of composition is centred round a very restricted interest: *model mates*. A model mate is a mating position with the following characteristics:

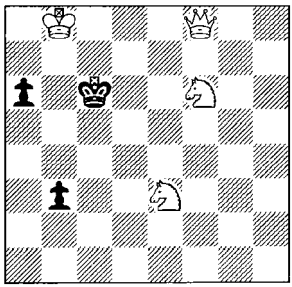
1) No square in the mated king's field is guarded more than once, or is blocked as well as guarded;

2) All of the mating side's pieces, with the permissible exception of the king and pawns, participate in the mate;

3) If a piece belonging to the mated side is pinned, it does not matter if it stands on a square in the mated king's field – an exception to rule '1'.

Such checkmates – mates with, as it were, 'nothing to spare' – can be most unexpected. As well as this paradoxical element there is also 'optical logic' geometry in the control of the black king's field.

So much for the letter, let us have a look at the spirit via No. 8.1, by the acknowledged Bohemian leader.



8.1 Mate in 3 G(P)(D)
M.Havel
Zlata Praha 1904

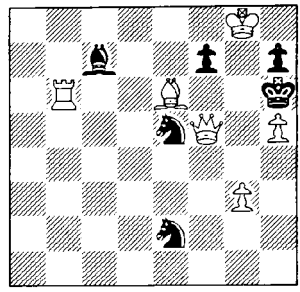
The key is **1 ♘e4!** which gives a flight on d7 and threatens 2 ♕e8+ ♔b6 3 ♘c4#. This is a mate to savour: all White's resources, including the king, are just sufficient to effect the mate. Now look at the variation after **1...a5**,

which defends against the threat by vacating a6, but turns out to be a prospective self-block: **2 ♕d6+ ♗b5 3 ♘c3#**. This model is sufficiently similar to the mate in the threat to count as an echo, and because it is on squares of the opposite colour, it is a chameleon echo. The third variation is **1...♔d7 2 ♔b7!** (threatening 3 ♘c5# which is not a model because c8 is guarded twice and the e3-knight is a non-participant) **2...♔e6 3 ♕e8#**. One of the best-known models showing a pleasing symmetry.

This work is the very epitome of the Bohemian school. It shows a variety of mates as well as an echo. Although the prospective self-block is a very good variation strategically, the other two mates have no strategic content. One is produced by the threat in a completely straightforward manner and the other comes about by the black king simply walking into a different mating net. A big plus in this particular instance is the outstanding economy – it is a miniature without any white pawns. Also, the key is technically good, although the tiny size of the black force reduces the paradoxical impact.

Bohemian problems can quite often prove difficult to solve, precisely because of this lack of strategy. The positions are designed to show the black king being mated on different squares, and this, together with the comparative lack of black force, often results in a shortage of positional signposts.

No. 8.2 shows a very attractive, but constructionally demanding way of adding interest to model mates through the use of *pin-models*.



8.2 Mate in 3 G(P)
G.Koziuri, 1st-2nd Prize
Lobosov Jubilee 1990

The surprising **1 ♖b5!**, giving up a promising-looking rook + bishop battery, threatens 2 ♕f6+ ♔xh5 (2...♘g6 leads to an unimportant dual after 3 ♕g7/♕g5#) 3 g4#. Note that the e5-knight is pinned, making 3...♘xg4 impossible. An obvious defence to this threat is **1...♘xg3**, which makes f4 available to White's queen: **2 ♕f4+ ♔xh5 3 ♗xf7#** – again the knight on e5 is necessarily pinned. Lastly, **1...fxe6** unguards g6, leading to **2 ♕xh7+ ♔g5 3 ♕g6#**, a third pin-model depending upon the pin of the e5-knight, and a clever second use of the g3-pawn. The fact that the knight is pinned in all three variations provides this elegant work with exceptional unity. The only slight criticism is that two of the mates are *side-board* models, which are of lesser value than mid-board models (reduction of paradox).

Model mates are widely regarded

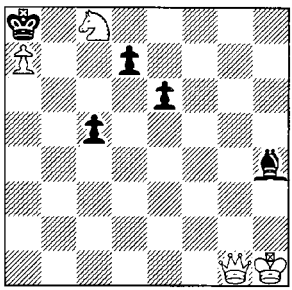
as a special form of economy: with the possible exception of the king and pawns, the mate will necessitate the participation of all available white men, and each white man performs a vital task – no superfluous force is involved in the mate. We can also take the view that models are geometrically interesting: we can take pleasure in the precise way in which the white pieces guard the squares in the black king's field without overlapping in their protection of a single square.

While problems such as 8.2 demonstrate that the Bohemian tradition is far from dead, they are few and far between nowadays. Original ideas are hard to come by, and the relative lack of strategy limits the appeal of problems whose only purpose is to show models. On the other hand, a model mate or two in a work with a completely non-Bohemian point is universally regarded as a most desirable enhancement.

The Logical School

The Logical or New German school has been going strongly since the early years of the twentieth century. The term 'logical' refers to the way in which the solution is structured. This structure is called a *logical combination* and boils down to the following: in the initial position, White has a potential means of forcing mate, which is referred to as the main plan; if he tries to execute this plan immediately, Black will be found to possess a refutation. Accordingly, White must first execute a *foreplan*, whereby Black's defence to the main plan is negated in some way.

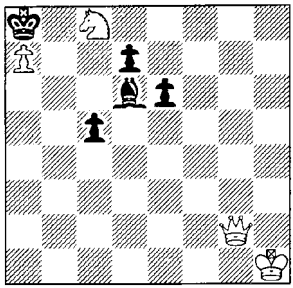
No. 8.3 is a very clear example.



8.3 Mate in 3 D(G)
J.Møller
Skakbladet 1920

White's main plan is highlighted by the try **1 ♕b1?** threatening 2 ♕b8#, which is refuted by **1...♗g3!**. The key is **1 ♕g7!**, which threatens 2 ♕xd7 followed by unavoidable mate. Black can defend against this by interposing his bishop with **1...♗e7**. This move signifies the success of White's foreplan, which was to *decoy* the bishop. Thus he can now revert to the main plan with **2 ♕b2**, again threatening 3 ♕b8#. Black no longer has the defence 2...♗g3 at his disposal, but can instead play the analogous **2...♗d6**. Whereas playing ...♗g3 did not harm Black's position, this move interferes with the d7-pawn, allowing **3 ♕g2#** since 3...d5 is no longer possible.

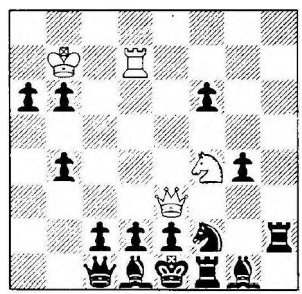
White's foreplan has forced Black to substitute a bad defence for a good one – a very popular logical idea.



Notice the three 'long' queen moves in this solution, which carve a large triangle out of the board. The non-thematic **1...♔b7** does not really defeat the threat: **2 ♕xd7+ ♔a6 3 a8♕#.**

This problem illustrates the most important feature of the Logical School: there is only a single thematic line of play. Within this single line – there are seldom even two thematic variations – the composer expresses his entire conception. Most logical problems are more-movers, enabling both foreplan and main plan to be longer; indeed, some have multiple foreplans, each one negating a counter to a later one or to the main plan. Strategy is not lacking – the interference in 8.3 is very pretty – and the mate is, technically, a model, albeit a rather unimpressive one. But the Logical School utilizes an important reasoning structure of the game as played: you want to execute your plan, your opponent has a counter, so you manoeuvre to remove or undermine that counter before returning to the central idea. Logical composers are above all else concerned to show this structure in a pristine form, and to this end they apply a very important standard, called *purity of aim*. By this is meant, to express it at its simplest, that the foreplan must *only* have a single purpose in dealing with Black's defeat of the White try or tries. In 8.3, the only purpose of 1 ♕g7 is to decoy the black bishop; the move does not confer on White any other advantage which he did not have before.

The main appeal of logical problems is Depth; their very structure guarantees this. More than in any other kind of problem, it is necessary to solve them to appreciate their impact fully. Look at No. 8.4.



8.4 Mate in 5 DP(G)
Stefan Schneider, 1st Place
Austria-Switzerland Match 1977

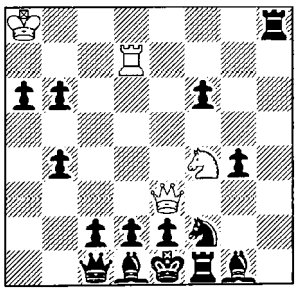
White achieves nothing with 1 ♖e7 as 2 ♕xe2+ ♗xe2 3 ♖xe2+ is not mate – a well-known situation in which queen and rook are the wrong way around. Thus White's main plan is ♕e8, followed by ♖e7 and ♖xe2+, a geometrical motif often seen in logical problems,

and referred to as *doubling*. But **1** ♕e8? is much too long-winded, and frees the black queen to run rampant by giving up the possibility of ♕xd2#. The secret to achieving the doubling is to be able to play ♕e8 with gain of time – a very hard thing to imagine, especially as the move is in the opposite direction to Black's king. This is how it is done:

1 ♔a8!!

A move which is not only deep for the reasons outlined, but also allows a check, which creates a strong flavour of paradox as well. The threat is simply 2 ♖h7! followed by removing the h2-rook and ♘g2#; the point of going to a8 is to avoid 2...♖xh7 being check, but in doing so also to avoid b8 because of the potential pin by the black bishop coming to h2 (the reason for avoiding 1 ♔c8? will soon become clear). Black is so tied down that his only possibility is to put White's idea to the test.

1...♖h8+



White continues in madcap style:

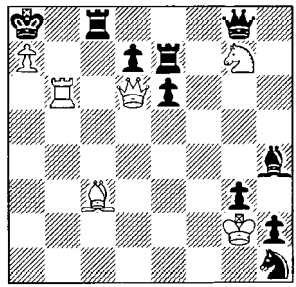
2 ♕e8!!

Now, if 2...♖xe8+, 3 ♔a7! (not 3 ♔b7? ♖b8+ 4 ♔xb8 ♗h2! – this also explains why 1 ♔c8? would have been a mistake, because the white king would not have been able to escape the h2-b8 diagonal within the 5-move limit of the problem). Black can now no longer guard g2, and after 3...♖a8+ 4 ♔xa8, 5 ♘g2# is threatened. This can only be prevented by freeing f2, but moving the knight on f2 allows 5 ♘d3#. Therefore, Black must play

2...♖h2

and now the main plan is executed with **3** ♖**e7**, leaving the black army looking on while White goes **4** ♖**xe2+** ♗**xe2 5** ♕**xe2#**.

Diagram 8.5 shows the exact opposite of the doubling we have just seen.



8.5 Mate in 7 DGP
H.Grasemann & A.Kraemer, 1st HM
Deutsche Schachzeitung 1957

The main plan of 1 ♖b8+ ♖xb8 2 axb8♕+ ♕xb8 3 ♕a6+ fails here because, from White's point of view, Black's queen and rook on the back rank are the wrong way around; if the rook arrived on b8 instead of the queen then 3 ♕a6 would be mate. White has a

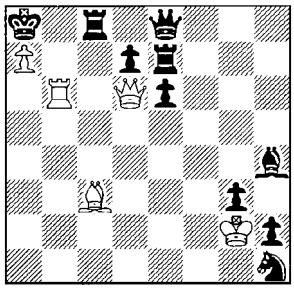
foreplan which brings about the reversal of queen and rook:

1 ♘e8!

First the queen is dragged over the critical square f8.

1...♕xe8

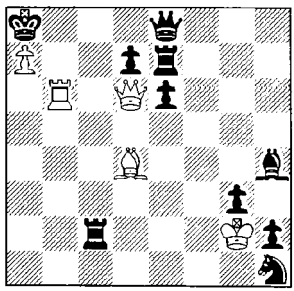
After 1...♖cxe8 2 ♕c7 or 1...♖exe8 2 ♖b8+ the mating is easy.



2 ♗d4!

Guards a7 in order to threaten 3 ♖b8+ ♖xb8 4 axb8♕+ ♕xb8 5 ♕a6+ ♕a7 6 ♕xa7#. Black has no adequate direct defence to this threat and must avail himself of the opportunity given him by White to lash back with a check:

2...♖c2+



3 ♗f2!!

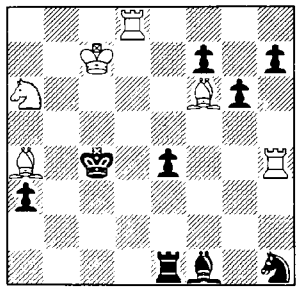
A lovely rejoinder, whether or not you have seen its point.

3...♖xf2+ 4 ♔h3 ♖f8

Black must restore the protection of his back rank.

5 ♖b8+ ♕xb8 6 axb8♕+ ♖xb8 7 ♕a6#

Although logical problems are, if anything, easier than the average more-mover to solve, an obscure main plan can lead occasionally to ferocious difficulty. Diagram 8.6 looks so innocent, yet hides a remarkably deep idea:



8.6 Mate in 5 DP

H.Grasemann

Berliner Morgenpost 1956

1 ♖h3!! ♗xh3

White was threatening 2 ♖c3# and 2 ♖d4#. If 1...♘g3, then 2 ♖xg3 ♖e3 3 ♖g5 and 4 ♖c5#. After 1...♗d3, White has 2 ♖d4+ ♔c3 3 ♖dxd3++ ♔c4 4 ♖d4#.

2 ♖d4+ ♔c3 3 ♖d5+ ♔c4 4 ♗c2!!

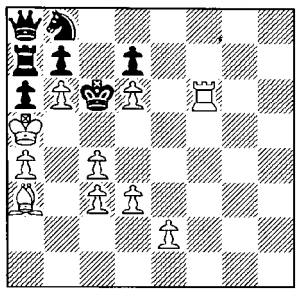
Threatening 5 ♖c5#.

4...♔xd5 5 ♗b3#

Only now do we see the purpose of White's superb first move: the bishop on f1 had to be decoyed so as not to be

available to interpose on c4 and upset this lovely model mate! Of course, the double rook sacrifice is not so easy to spot either.

Somewhat easier to solve, yet of challenging length, is the sort of problem beautifully represented by No. 8.7.



8.7 Mate in 17 DGF
Y.Vladimirov, 1st Prize (version)
Macleod Memorial Tourney 1994

White's main plan is ♖f8 followed by ♖c8#, but Black's stalemate must first be relieved. The foreplan is like walking a tightrope, allowing ...♔c5, then checking the king back to c6, all the while regrouping the forces to make the main plan possible without giving Black the opportunity to unravel.

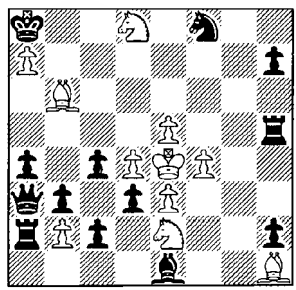
1 ♗c1 ♔c5 2 ♗e3+ ♔c6 3 ♗f4 ♔c5 4 ♖f5+ ♔c6 5 ♗e5 ♔c5 6 ♗h2+ ♔c6 7 ♖f6 ♔c5 8 ♗g1+ ♔c6 9 e3 ♔c5 10 e4+ ♔c6 11 ♗h2 ♔c5 12 ♖f5+ ♔c6 13 e5 ♔c5 14 ♗g1+ ♔c6 15 ♖f2! ♔c5 16 ♖f8+

Finally, the move White has been building up to all along. The foreplan has made it possible to play this move with check.

16...♔c6 17 ♖c8#

Among the fascinating geometrical effects in this problem is the variety of self-interferences employed by White to relieve the stalemate: the bishop interferes with the rook, and the rook with the bishop; the pawn interferes with both rook and bishop. Because of its length, the problem exhibits a pleasing flow as well. Although Black merely marks time with the king, the three dancing white men perform an intricate counterpoint.

By way of recompense to the king, our next example shows the white king doing all the work. No. 8.8 is also the problem which inspired the tourney won by No. 8.7.



8.8 Mate in 8 DG(F)
N.A.Macleod, 1st Prize
Mat 1983

The main plan here is 1 ♔d5 (2 ♔xc4#) 2...♕b4 2 ♔c6 (3 ♔c7#) and Black is unable to hold all the discovered checking squares, e.g. 3...♕e7 4 ♔b5+ and mate next move. However,

after 1 ♔d5, there is the simple and effective 1...c1♕! scotching White's plans, for if now 2 ♗c6, the e1-bishop moves away and the bishop on h1 comes under fire. What is the foreplan, and how does it put paid to the ...c1♕ defence?

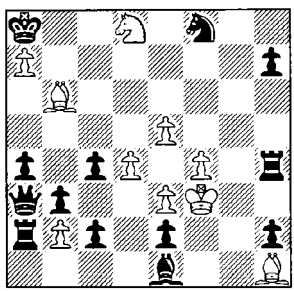
1 ♔f3 ♖h4

The best way to defend against the threat of 2 ♔g4#. If 1...♖g5, then 2 fxg5.

2 ♔g2 dxe2

Black had to stop 3 ♔f1#.

3 ♔f3!



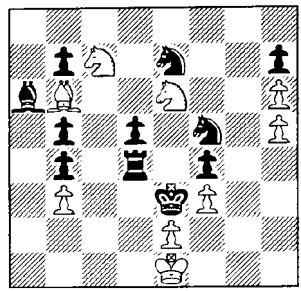
White can return to great effect, whereas Black's second move is irrevocable.

3...c1♘

And there you have it. This is a particularly amusing form of *obstruction*: now the pawn can no longer become a queen because it has become a knight!

4 ♔e4 ♖h5 5 ♔d5 ♕b4 6 ♗c6 ♕e7 7 ♔b5+ and mate next move.

This problem is a demonstration of the fact that logical problems are excellent vehicles for geometric ideas which require a number of moves to effect. Our last example of this school is an awe-inspiring strategic-logical achievement.



8.9 Mate in 6 DG(F)(P)
A.Lobusov & A.Spirin, 1st Prize
E.Zepler Memorial Tourney 1985

The position shows a situation often referred to by problemists as 'White to play', emphasizing the point that, if it were not White to play, Black would be in zugzwang. This is a favourite theme amongst composers of logical problems: in the foreplan, Black is inveigled somehow into allowing White to lose a move. In the present situation, if it were Black to move, a knight would have to give up the protection of d5 or d4, resulting in instant mate. Note that attempting a waiting move with the bishop on b6 frees the b7-pawn and subsequently the a6-bishop to make all the waiting moves Black needs.

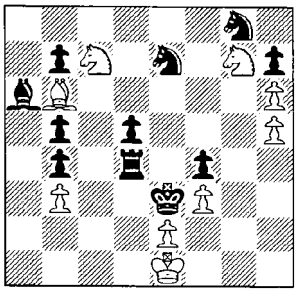
1 ♘e8! ♘g8

This is the only move to stop 2 ♘f6 followed by mate on g4.

2 ♘6c7! ♘fe7

The black knights are hard-pressed to contain the threats of their opposite

numbers. If 2...♘ge7, 3 ♘f6.
3 ♘g7!



Threatening 4 ♘xd5+ and 5 ♘f5# or vice versa. If now 3...♘f6, then 4 ♘ce6! and Black cannot prevent 5 ♗xd4# without allowing 5 N(x)f5#.
3...♘xh6 4 ♘ge6 ♘hf5 5 h6!

Lo and behold, out of nowhere White has acquired a waiting move! The diagram position has been repeated, only there is a pawn missing from h5 and it is not 'White to play'. Mate follows on the next move. Even more remarkable is that, during the solution, the two white knights have swapped places, a graphic motif popularly known by the German word *Platzwechsel*. And, as though this were not enough, the same manoeuvre has been performed by the black knights! A wonderful creation, particularly as the play is so clear in a neat, if slightly heavy position. The prancing of the knights also provides a pleasing impression of flow. Perhaps there is some humour here too, since laughter is quite a common reaction to seeing the solution!

The Strategic School

The Strategic School is easily recognized by the fact that their problems generally have a number of variations. Their interest lies almost entirely in the exploration of a vast treasure trove of geometric or 'strategic' ideas. An idea is displayed a number of times in a problem, creating an artistic effect strongly resembling the 'variations on a theme' of classical music. Strategic problems are mostly short – between two and four moves – because the majority of the themes only require a few moves for their expression, and anyway the longer the problem, the more difficult it is for the composer to control more than a single line of play.

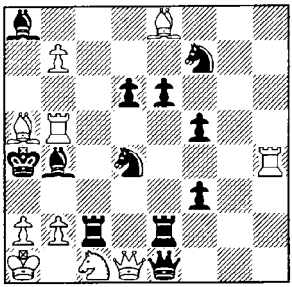
An important feature for which the strategic composer strives is *unity*. In broad terms, this means that he tries to maximize the number of elements shared among the variations. Unity is the rough equivalent for the strategic composer to purity of aim for the logical composer; however, as we shall see, it is frequently impossible to avoid *by-play*, which is essential to the soundness of the problem.

Diagram 8.10 is as good an example of Strategic School ideals as any.

(see following diagram)

Its fundamental theme is the *half-pin*, which has proved to be one of the most fertile geometric devices in problemdom: the line between the rook on h4 and the king on a4 is occupied by two black pieces – when one moves off

the line, the other becomes pinned.



8.10 Mate in 2 G
C.Mansfield, 1st Prize
Hampshire Telegraph & Post 1915

The key is **1 ♗c7!** threatening 2 ♖a5#. Any move of the b4-bishop defeats the threat by creating a potential flight square; it also leaves the d4-knight pinned, thus: **1...♗a5 2 ♖b6#.** This mate not only capitalizes on the fact that the e5-knight cannot interpose, but also on the blocking of a5 by the bishop, allowing the rook to interfere with the c7-bishop (this is in direct contrast to the logical composer's ideal of purity of aim, which would require the mate to be allowed only by the pin on the d4-knight). Note the enthralling complexity of what is happening in this variation: the b5-rook, in discovering check from the e8-bishop, must move in such a way as to maintain control of b4, the square just vacated by the a5-bishop, but b7 and b2 are occupied by white pawns, leaving a choice between b3 and b6. But 2 ♖b3+? unpins the c2-rook, allowing it to interpose on c6, so the only mate is 2 ♖b6 – another case of dual avoidance.

Let us look at the remaining variations. If **1...♗a3**, we have another self-block: **2 b3#**, again depending on the pinning of the d4-knight. In fact, all the moves of the b4-bishop result in mates which depend on this feature: **1...♗d2** allows **2 ♕xc2#** because the e2-rook is interfered with, while **1...♗c5/♗c3** interfere with the c2-rook, allowing **2 ♖b3#** unpinning the rook, which is unable to interpose – a glorious collection of geometric effects in a single variation!

We now turn to the moves of the knight on d4. By opening the line from the h4-rook, they cause the b4-bishop to be pinned: **1...♘c6** does not defeat the threat: **2 ♖a5#** is still mate, because, although the bishop on e8 has been shut off, both protectors of a5 are pinned. **1...♘xb5** is another strategy-intensive variation: by capturing the rook, the knight as well as the bishop is pinned again, this time permitting a new actor to enter the stage: **2 bxa8♕(R)#** (problem conventions do not count this choice of promotion as a dual). Finally, the knight can divert White's attention by a check: **1...♘b3+** which is met by the strategy-less **2 axb3#** – an example of the by-play we referred to earlier.

The Construction of a Chess Problem

The appreciation of chess compositions can be greatly enhanced by an understanding of the composing process, just

as our appreciation of a master game is increased by understanding the reasoning behind their moves.

Let us examine the constructional features of Mansfield's problem. If we consider first the very mild flaw of the unthematic 1...♘b3+ variation, we soon see that the composer was unable to eliminate it because the b3-square could not be blocked owing to the need for 2 ♕xc2#. In fact, it dawns upon us how clever the composer has been in making use of the white king to ensure that 1...♘b3 is check, thus forcing 2 axb3#, otherwise the threat would not have been prevented and a nasty dual would have resulted.

It is customary among composers to talk about the *matrix* of a problem. This refers to the pieces which are essential to the expression of the idea, and their locations. In Mansfield's problem, the matrix comprises all the white men except the king, the knight and the pawn on a2; the black men include the king, the rooks, the bishops and the knight on d4. We can now examine the justification for the men which are not part of the matrix, for all must have a reason, as demanded by the tenets of artistic economy.

The justification for the white 'extras' is easy: the c1-knight protects b3 as well as preventing the catastrophic 1...♕xd1+; the a2-pawn, together with the king being located on a1 rather than anywhere else, are required for the by-play variation we have already examined.

The f7-knight is a typical necessity: without it 1 ♗d8 would be a cook. The pawn on d6 prevents the b4-bishop moving to that square or beyond, which would result in a 'no solution'. The pawn on e6 shields the e8-bishop from the e2-rook. The queen on e1 protects the b4-bishop, so that 1...♘c6 does not allow the horrible 2 ♖bxb4#. More controversial are the pawns on f5 and f3. These have the purpose of preventing the d4-knight from moving to these squares, which would allow not only the threat, but also the rather smart 2 ♖c5#, which does not appear in the thematic variations. Nowadays, composers are generally far more relaxed about duals following moves which do not defeat the threat. However, even by today's standards, we feel Mansfield was correct to add the pawns, because they ensure that the problem is one hundred percent accurate. This is an aesthetic plus worth having, and is an example of the sort of refined judgement sometimes demanded of a chess problem composer.

Conventions

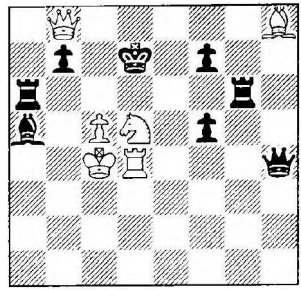
An important concept in the appreciation of problems, as in other art forms, is the distinction between form and content, or, as a problemist would express it, between construction and idea. It is not enough for the composer to present a beautiful idea; he must also endeavour to present it beautifully. The problem genre abounds with rules and conventions, most of which are guides to the ideals of construction. Probably the strictest of these is the

rule that an orthodox problem must have a unique solution. If a second solution exists, this is termed a 'cook' (sometimes falsely thought to be named after the 19th century composer E.Cook) and renders the problem effectively non-existent. This is surely natural enough: additional solutions cheapen the intended one, however pretty it might be in itself, and we would feel similar disappointment at a brilliancy which represented but one of a choice of wins.

Another natural convention, particularly in shorter problems, is that the key move should not be a check or capture of a piece. Such crudity militates against our desire for depth and paradox; it also usually undermines the difficulty of the problem (if a problem is too easy it ceases to be a problem!). Yet such rules can be bent, provided there is a justification; if a beautiful idea cannot be better constructed, then it is better that it should not blush unseen.

Players may find the following problem rather pointless at first, as well as being too easy to solve! But it was an understanding of constructional difficulty that enabled a tough tourney judge to set aside all the crudities of No. 8.11 (by John Rice) to give it First Prize, because he was aware of the great achievement of constructing a cyclic change two-mover. We must always balance the defects we see in a work by asking ourselves whether its aesthetic achievement can carry them.

8.11 is an example of a well-justified constructional defect.



8.11 Mate in 2 G
J.M.Rice, 1st Prize
Problem Theme Tourney 1961

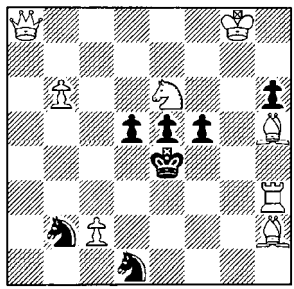
There are three phases to this problem, and in each we must concentrate on the way in which White deals with the king moves **1...♔c6 (x)** and **1...♔e6 (y)**. In the set play, these are answered by **2 ♕e8# (A)** and **2 ♕c8# (B)** respectively. But White must get a move on, because Black possesses two much stronger moves, 1...♕xd4+ and 1...b5+. So we try **1 ♘b6++?** (The question mark denotes the fact that this move is a 'try'): now, after **1...♔c6** we get **2 ♕c8#** and after **1...♔e6** comes **2 ♕d6# (C)**, but after **1...♔e7!** there is no mate. Thus we arrive at the key: **1 ♘f6++!** and now **1...♔c6 (x)** gives **2 ♕d6# (C)** while **1...♔e6 (y)** is met by **2 ♕e8# (A)**.

This work shows the extremely difficult theme of *Cyclic Change*; the replies to the two Black defences **x** and **y** are **A-B** in the set play, **B-C** in the play after the try, and **C-A** in the actual play. At the time, the theme had not been achieved at all; even today it is re-

garded as something of a task. The use of double-checking try and key moves would probably be justified by this consideration alone, but there is an additional factor. The fact that there are two likely-looking checks goes some way to counteracting the lack of difficulty inherent in checking moves; the solver still has a slightly tricky choice to make. Note also that the '*unprovided checks* – Black checks in the diagram position against which there is no mating reply – are also a technical flaw, because they point to the solution. Given the checking try and key, there is little point in doing anything about this, and the composer has quite rightly preferred to maximize the economy of force used, rather than add material to avoid the flaw.

Such works are often dismissed by some problemists – not to mention players – as arid and excessively formal. In our view, this is a mistake; it misses an opportunity for the enjoyment of human ingenuity which is of a very similar order to that displayed in a brilliant combination. Always study the mechanism whereby the composer rings the changes. Consider, for example, the reasoning behind the change of just one of the mates between the set play and the play after **1** ♘**b6++?**: in the set play, after **1...**♗**c6**, **2** ♕**c8+** is not mate because the a5-bishop can interpose, but **2** ♕**e8#** succeeds because the d5-knight guards c7. After **1** ♘**b6++?** ♗**c6**, **2** ♕**e8+** is not mate because c7 has been unguarded; on the other hand, **2** ♕**c8#** is mate because the b6-knight now shuts off the bishop from c7.

Returning to the consideration of problem conventions, it is frequently unsatisfactory when a Black defence leads to more than one mating continuation, called a *dual*. Many compositions of all types contain clever devices whereby the author has eliminated duals whose presence would otherwise have severely reduced the value of the work. In fact, *dual avoidance* has proved to be a rich theme in itself. Consider No. 8.12:



8.12 Mate in 2 G(P)
V.Lider, 2nd Prize
Tribune de Genève 1983

The key is the nice corner-to-corner move **1** ♕**a1!**, which puts Black in zugzwang. If the knight on b2 were removed from the board, White would have the dual mates 2 ♕xe5# and 2 ♘c5# because of the opening of the a1-e5 diagonal, but after **1...**♘**a4** only **2** ♕**xe5#** is possible, while after **1...**♘**c4** only **2** ♘**c5#** is possible; in both instances, the defence protects one of the two potential mating squares. **1...**♘**d3**

has a similar effect to a correction, preventing both the previous mates but allowing the new **2 cxd3#**. The same idea is echoed by the knight on d1: its random move opens a line for the queen allowing **2 ♕e1#** and **2 ♕h1#**. **1...♘c3** and **1...♘f2** separate these mates, while **1...♘e3** prevents both, but self-blocks instead, allowing the *self-interference* mate **2 ♗f3#**. We must also account for **1...d4** producing the switchback **2 ♕a8#** and **1...f4** allowing **2 ♗g6#**.

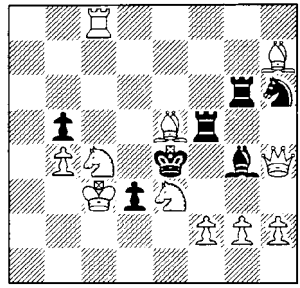
Traditional and Modern

One of the most interesting developments in the Strategic School has been the evolution of ideas in the two-mover. This was alluded to in the Geometry chapter, where it was characterized as a progression towards abstraction and the relationships between moves. This shift is referred to amongst problemists as a change from the Traditional to the Modern two-mover. As a somewhat crude rule of thumb, traditional two-movers focus on the play after the key, whereas modern ones are concerned with more than one phase, comprising try-play and/or set play, as well as actual play.

Diagram 8.13 shows a half-pin, but in this case it does not form the central idea of the problem.

(see following diagram)

Any move of the e5-bishop, retaining control of f4, will threaten mate by 2 ♘d2#. Let us try **1 ♗g3?**. If Black pins the knight with **1...♖c6**, the rook on f5 becomes pinned and **2 f3#** results. If **1...♖xf2** the rook on g6 is pinned and this allows White to mate with **2 ♖e8#**. However, **1...♖f4!** cleverly defeats the threat (by shutting off the g3-bishop) without allowing mate, because, although the g6-rook is pinned, 2 ♖e8+ is not mate because the g4-bishop can now interpose.



8.13 Mate in 2 G

U.Heinonen, 1st Prize
'Mat' Theme Tourney 1984

Our next attempt to mate by 2 ♘d2# is to protect the bishop on e5 with the queen by **1 ♕e7?**. Now if Black answers as before with **1...♖c6**, 2 f3 is no good because the g4-bishop is no longer pinned, but **2 ♗d6#**, neatly shutting off the c6-rook, is possible because of the new battery. If **1...♖xf2**, White now has **2 ♕b7#**, taking advantage of the inability of the g6-rook to interpose. This time, Black deals with the try by **1...♖e6!** to which White has no answer.

Finally, we come to the key itself, **1 ♕g3!**. Against **1...♖c6**, White has this

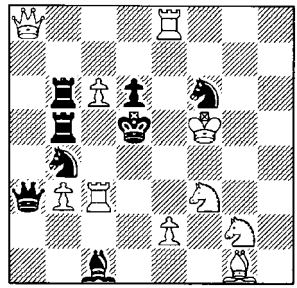
time **2 ♕f4#**, whilst **1...♖xf2** is now met by **2 ♘d6#**.

What does this work present? It consists of three phases, two of which occur as a result of tries, and one is, as always, the actual play. In each phase, Black has two thematic defences, **1...♖c6** and **1...♖xf2**, and each time the mates permitted by these moves are different. The half-pin, which underlies all six mates, is a means of drawing them all together into a particularly tight and satisfactory unity.

This scheme, in which the same two (or sometimes more) defences are answered by different mates in at least three phases of the solution, is called the *Zagoruiko Theme* after one of its Russian pioneers. In our view, it is the bedrock of the modern strategic two-mover. It has been developed in many different directions, including reducing the number of mates even to the minimum possible, of which No. 8.11 was the first example.

Problemists often refer generically to the device which allows the mate to occur after a defence as a 'mistake'. (In the Heinonen problem we have just examined, for example, the mistake made by the thematic Black defence 1...♖c6 is to leave the other rook pinned.) Because the focus of the Strategic School centres round these devices, its members could be characterized as collectors of mistakes! Amusing as this may sound, such an accumulation is also of considerable interest to the general chess enthusiast, and perhaps it accounts to some extent for the enduring vitality of the Strategic School.

Our last example of the modern two-mover demonstrates that White can also make mistakes.



8.14 Mate in 2 GP
J-P.Boyer, 1st Prize
Thèmes 64, 1985

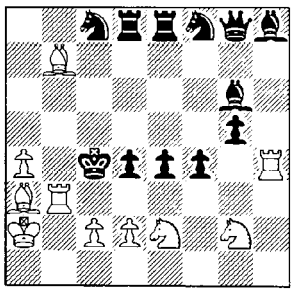
In this diagram White can threaten 2 ♘f4# by playing something to e3, thereby shutting off the bishop on c1. If **1 e3?** Black has **1...♘d3!** because 2 ♖xd3+ is no longer mate as the e3-pawn has interfered with the g1-bishop, and control of c5 has been lost. If White tries **1 ♗e3?**, **1...♘d3** now allows **2 ♖xd3#**. but this time the refutation is **1...♘h5!**, because the bishop has interfered with the e2-pawn and prevented it from mating on the unprotected e4-square. The key is amusingly radical: **1 ♖ee3!**, which surprisingly renders the mates prepared for both defences inoperable by interfering with both the g1-bishop and the e2-pawn. Of course, this move has compensating features that make new mates possible against the original defences: **1...♘d3 2 ♖exd3#** and **1...♘h5 2 ♕g8#**,

the latter having been made possible by the departure of the key rook from the a8-g8 line.

There are two serious drawbacks from the aesthetic point of view in this problem. Firstly, there are just two thematic defences, and each is seriously lacking in strategy, the 'mistake' made in each case being a simple unguard. Secondly – and this would be unacceptable to many a traditionalist – the bishop on g1 plays no role at all after the key. Can the original and well-unified tries, which represent a white bishop/pawn Grimshaw, justify these flaws? You pays your money and you takes your choice.

Longer Strategic Problems

There are a number of strategic themes which require more than two moves to execute. For example, the logical extension of the half-pin is the *third pin*, of which No. 8.15 is a beautifully constructed example.



8.15 Mate in 4 G(D)
Y.Vladimirov, 1st Prize
Probleemblad 1966

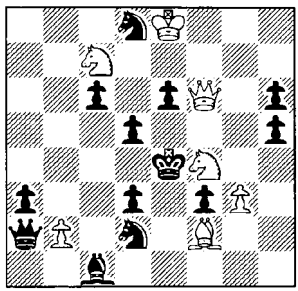
The key is **1 ♔b1!** which threatens 2 ♖b4+ ♔c5 3 ♖b5+ ♔c4 4 ♖c5# by avoiding a discovered check from the queen on g8. Black can only defend by protecting c5: **1...♘d7**. This is an example of negative depth, because it turns out that the knight interferes with the d8-rook. White has only to play the next three moves in the correct sequence: **2 ♖c3+! dxc3 3 ♘e3+! fxe3 4 d3#**, the other two pawns having been dragged off the h4-c4 line, the e4-pawn now finds itself pinned.

If Black instead tries **1...♖e5**, the rook will be found to have interfered with the bishop on h8. White plays the same moves as before, this time in a different order, so as to avoid the attentions of the pieces whose lines are opened by the pawn captures: **2 ♘e3+! fxe3 3 d3+! exd3 4 ♖c3#**. Finally, **1...♘e6** interferes with the rook on e8, and the final sequence is **2 d3+! exd3 3 ♖c3+! dxc3 4 ♘e3#**. We should, for the sake of completeness, mention the sideline **1...Q(R)d5** which operates as a self-block: **2 ♗a6+ Q(R)b5 3 ♖xb5** followed by **4 ♖c5#**.

A great problem by a leading composer! Note the graphic start position with a neat line of black pieces along the back rank. This work illustrates, not only the third pin, but also a highly fashionable cyclic theme. The second, third and fourth White moves in the thematic variations form the pattern ABC, BCA, CAB. As we have seen, this cyclic arrangement is very highly-prized among two-mover composers. The extra length has enabled it to be

achieved without resort to the multiple phases necessitated by the two-mover's brevity.

One of the most basic square effects in three- and more-movers is *obstruction*. This is simply the occupation by a piece of a square to which a piece of the same colour wishes to go. Self-block, which can be considered a special case, is the only type of obstruction possible in two-movers. No. 8.16 shows this with some ingenuity.



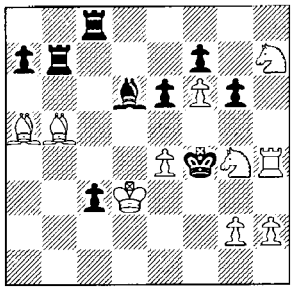
8.16 Mate in 3 G
M.Keller, 1st Prize
Schweizerische Arbeiter Schachzeitung 1968

The key is **1 ♔d7!** threatening 2 ♕g6+ ♔e5 3 ♘xd3#. Black defends by protecting d3: **1...♕b1 2 ♘fxd5!** and mate follows by **3 ♘c3#** or **3 ♕f4#**. Piquantly, the queen obstructs the knight on b1; if 2...♘b1 were possible, Black would be able to refute the double threat. Similarly, if **1...♕b3**, **2 ♘fxe6!** threatens 3 ♘c5# and 3 ♕f4#, and now 2...♘b3 is impossible (**2...♘xe6 3 ♕xe6#**), or **1...♕c4 2 ♘g6!** followed by **3 ♕e5#** or **3 ♕f4#**, because this time 2...♘c4 cannot rescue Black.

An important feature of problems like Keller's is that they can equally well be claimed as belonging to the logical as well as the strategic tradition. The reason for this is that they have *thematic tries* which emphasize the strategy and enable the content to be construed as a logical combination. In Keller's problem, White can try 1 ♘fxd5?, 1 ♘fxe6? and 1 ♘g6? and these are uniquely defeated by 1...♘b1!, 1...♘b3! and 1...♘c4! respectively. The key represents a foreplan which forces Black to negate one of these defences; White can then execute the appropriate main plan. This illustrates the fact that there is little ideological difference between the two schools, and that, to the onlooker at least, it is more a question of emphasis than a difference of content.

We have discussed the *Novotny* theme in the Geometry chapter: a white piece plays to the intersection square of two *unlike* line-moving black pieces, such as a rook and a bishop. In three or more moves it is possible to show the same idea with *like-moving* black pieces, such as two rooks, or a bishop and a queen operating diagonally on the same colour. This inherently paradoxical theme is called a *Plachutta*, and is particularly clearly shown, with an extra strategic element, by No. 8.17.

(see following diagram)

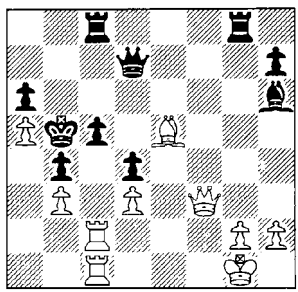


8.17 Mate in 6G(D)(P)(F)
H-P.Rehm, 2nd Prize
Probleemblad 1962

The black rooks prevent the one-two knockouts by 1 ♘e3+ ♔e5 2 ♘c4# and 1 ♘h6+ ♔e5 2 ♘xf7#. Black also threatens to zap the white battery with 1...g5, so White must act fast with **1 ♗c7!!** which threatens 2 ♗xd6+ as well as the advertised mates, so 1...g5 will not do. **1...♖cxc7 2 ♘h6+! ♔e5 3 ♗d7!**. The point of the Plachutta: now the rook on b7 cannot deal with this second nobly self-sacrificial cleric, so his brother has to do the dirty deed instead; this in turn means that the c7-rook is decoyed from guarding c4. **3...♖xd7 4 ♘g4+ ♔f4 5 ♘e3+ ♔e5 6 ♘c4#**. After **1...♖bxc7**, things are just the other way round: **2 ♘e3+! ♔e5 3 ♗c6! ♖xc6 4 ♘g4+ ♔f4 5 ♘h6+ ♔e5 6 ♘xf7#**.

The parallelism of the two variations is heightened by the way in which the g4-knight first travels west to effect the decoy for the mate in the north, and then travels north to effect the decoy for the mate in the west. These travels by the knight, powered by a discovered check, to deliver a distant mate, are examples of a favourite device called the *Siers battery*, which gives such problems a light but pleasant flow.

Lest you think that things like this never happen in real chess, perhaps you have not seen the beautiful No. 8.18?



8.18 White to Play
S.Tarrasch-Allies
Naples 1914

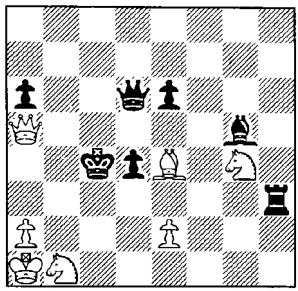
1 ♗c7!! ♕xc7

The other 'horn' of the Plachutta in this case is 1...♖xc7 2 ♕b7+! ♖xb7 3 ♖xc5#.

2 ♖xc5+ ♕xc5 3 ♕b7+ ♔xa5 4 ♖a1#

The relationship between Novotny and Plachutta is echoed by that between interference (see page 107) and *Holzhausen*. Ordinary interference is between line pieces of unlike motion whereas Holzhausen is between line pieces of like motion. Again, this cannot be shown in just two moves since

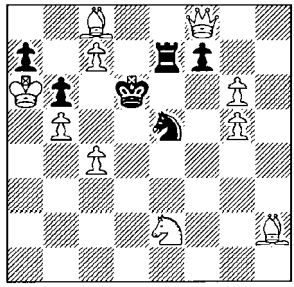
the interfering piece assumes guard over the mating square. A double-Holzhausen is shown in No. 8.19, which is particularly instructive for its game-like material balance and disposition of forces.



8.19 Mate in 3 G(P)
G.Bouma, 1st Prize
Schakend Nederland 1984

White concludes the king-hunt which has evidently been in progress with **1 ♗c6**, with the threat of 2 ♕xa6+ ♔c5(b4) 3 ♕b5#. Black can defend against this by vacating d6, but the black queen must keep control of e5. If Black tries **1...♕c7**, the loss of the guard on a3 allows the Novotny **2 ♘e3+!** followed by knight mates on a3 or d2, or, if **2...dxe3**, **3 ♕c3#**. The only way the queen can prevent the Novotny is to prepare to capture the knight on e3: **1...♕f4** achieves this but interferes with the g5-bishop, allowing the queen to be dragged away from e5 by **2 ♘d2+! ♕xd2 3 ♘e5#**. The parallel variation sees the queen interfering with the rook: **1...♕g3 2 ♘a3+! ♕xa3 3 ♘e5#**. Once again, we should account for all defences: **1...♖b3 2 axb3+ ♔xb3 3 ♕a4#**.

There is a viewpoint which holds that the three-mover is the ideal length for strategic problems. The reasoning behind this is that three moves are few enough to enable the composer to incorporate a good number of variations on a theme, while they are sufficient to carry most of the effects which we have been looking at, and more. Also, as we have seen, the three-mover is a suitable vehicle for patterns, which, in the two-mover, often depend on set and try play which strike the solver as unconvincing. Those who advance this view could do a good deal worse than quote No. 8.20 in evidence.



8.20 Mate in 3 GP(D)
W.Jørgensen, 1st Prize
Arbejder Skak 1950/51

The key is the stunning **1 ♗e6!!** which increases the black king's flights to three and the possibilities of the f7-pawn to four.

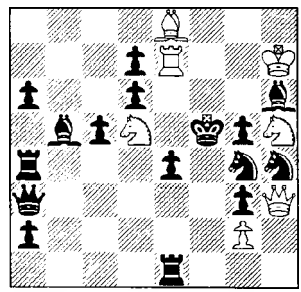
Now, a regular solver would in-

stantly recognize that the main content of the problem comprises the *Pickaninny* theme, the name given, during a less politically-correct age, to the maximum four variations possible by a black pawn. So let us first get the non-thematic possibilities out of the way: **1...♔c5** and **1...♔xc7** are met by the short mates **2 ♕xc7#** and **2 ♗xe5#** respectively, and **1...♔xe6** is met by **2 c8♕+** and if **2...♔d6**, then **3 ♕c6#**, or if **2...R/♘d7**, then **3 ♘d4#**. The first thematic variation to consider is **1...f6**. It is clear that this does nothing against **2 c8♕** followed by **3 ♕c6#**, which, as you would guess, is the threat. Much more promising is **1...fxe6**, which, although it admittedly blocks e6, has the great merit that 2 c8♕? is stalemate! Two can play at that game, however, and the underpromotion **2 c8♖!** forces mate after the obligatory **2...♔d7** by **3 ♕d8#**. Another self-stalemating attempt is **1...fxg6**, which has the merit, from Black's point of view, of not blocking e6. Unfortunately, leaving the e6-bishop on the board has its drawbacks, and White has **2 c8♗! ♕c7 3 ♗xe5#**. Finally, **1...f5** very cleverly defeats the threat, because after 2 c8♕? f4! a mate in one is nowhere to be seen. As always, there is a downside to the Black defence; on this occasion it is the prospective self-block on f5, allowing **2 c8♘+! ♔xe6 3 ♕xe7#**, or here **2...♔c7 3 ♗xe5#**.

This problem not only shows one of the best-loved graphic themes, the Pickaninny, but it also shows all four possible promotions of a single pawn. This theme is universally known by the German word *Allumwandlung* (literally, 'all conversions'). The extended geometry involved here is clear: the four moves of the black f-pawn are matched up with the four possible promotions, creating a beautiful conceptual pattern. No true problem lover could remain unmoved.

Assorted Longer Problems

While paradox is the most abundant element in terms of chess as a game, it is not always needed in problems. None of the moves in the following mate in seven are especially paradoxical, yet the overall effect caused by the depth, flow and geometrical pyrotechnics performed by the pieces is very serene:



8.21 Mate in 7 GFD
Mikhail Marandyuk, 2nd Prize Memorial L Kapusta 1996

White is actually a lot of material down and almost needs to find the solution to the mate in seven just in order to win!

1 ♘hf6!

1 ♘xg3+? ♕xg3! may win for Black. Anyway White certainly does not mate in seven. A closer try is 1 ♘df6?, when 1...e3? 2 ♘g8 ♗f8 3 ♘xg3+ ♔f4 4 ♘h5+ ♔f5 5 ♕f3+ ♖f4 6 ♘g3# mates. However, Black has 1...♕f3! 2 ♘g8? (2 gxf3 still wins but does not mate in time) 2...♗f8 3 gxf3 ♗xe7!.

1...e3

This time 1...♕f3 2 ♗h5 mates by brute force. Black had to defend g4 and 1...♗e2 leaves d7 unguarded, hence the main line is forced.

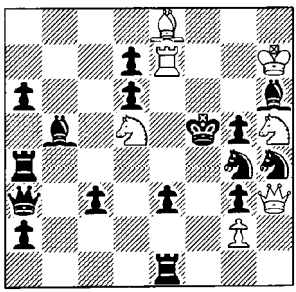
2 ♗h5 ♗e2 3 ♘e8

1st 'Platzwechsel' – the bishop on e8 and knight on h5 have changed places. The threat to d6 now lures forward the black c-pawn to open the a3-d6 diagonal for defensive purposes.

3...c4 4 ♘ef6

Hits g4 again, luring forward the c-pawn once more, this time to defend along the rank.

4...c3 5 ♗e8 ♗b5 6 ♘h5

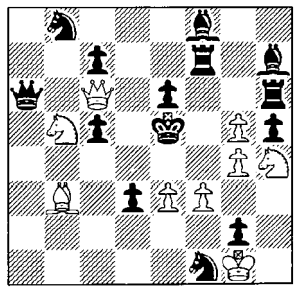


2nd 'Platzwechsel' – the knight and bishop have changed places again, both ending up where they started!

Naturally this is also a switchback by both pieces. The final threat is 7 ♘xg3 but unfortunately for Black the third rank is now blocked by two pawns and cannot be cleared in one move, thus Black is helpless to prevent **7 ♘xg3#**.

To defend against the threats Black had to open a line once by advancing the e-pawn and twice by advancing the c-pawn. In each case the line-opening also closed a line of defence until, finally, the a3-g3 line was twice closed. Meanwhile the white knight and bishop were dancing merrily away. The interplay between both sides is quite fabulous.

Have you ever tried a Novotny cocktail? Never heard of one? The next problem should make up for that:



8.22 Mate in 4 GP(D)(F)
Rolf Trautner
1st Prize, Schach Report 1996

1 ♘f5!!

The first Novotny, threatening immediate mate on e4 and f4.

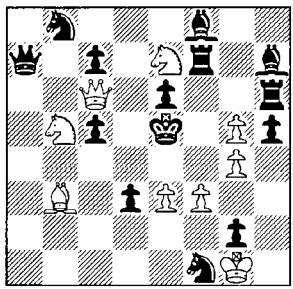
1...♕a4

The most difficult defence. If 1...♕xc6 (or 1...♘xc6), then 2 f4+ ♔e4 3 ♘c3+ ♔f3 4 ♗d1 is mate.

2 ♘e7!!

Novotny No. 2, this time threatening mate on c5 and c7. If 2...♘a6 defending both squares then 3 ♕xc7+ (anyway) 3...♘xc7 4 ♘c6 is mate. All three Novotnys deserved diagrams but life is sometimes unfair and this one did not get one.

2...♕a7

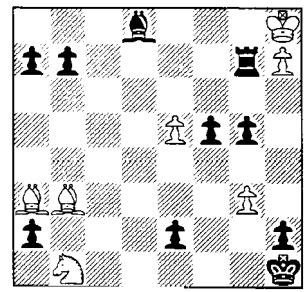


Black's queen has been lured to a new square to defend against the twin threats, but now the queen is away from her guard on e6 and so it is time for the third and final Novotny:

3 ♘g6+!!

Forces mate next move with ♕xe6 or ♕e4, depending on which black piece captures the heroic, triple Novotny knight. This problem fuses a great deal of Novotny geometry with paradox (after all the knight keeps placing itself en prise to many units with great effect). The Novotny concept inherently involves a touch of depth and so there is definitely a little depth in three of them. There is also a feel of flow in the violent, spectacular 'passage at arms' journey of the knight.

The underlying motivation behind the next composition (JL's) is also geometrical, based on a corner to corner idea. I was also deliberately attempting to achieve flow over the first seven moves of the solution. There is nothing deep or paradoxical about any of the moves in the solution and it is also quite a heavy starting position. It is largely a question of taste whether you think such a composition has aesthetic value or not. I believe it is sound both as a study and also as a mate in eighteen, that is, the fastest solution to the study (avoiding unnecessary repetition) is also the only way to mate in eighteen.



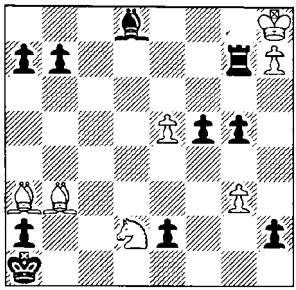
8.23 Mate in 18 GF
J.Levitt

First the black king is driven across the bottom rank.

1 ♗d5+ ♔g1 2 ♗c5+ ♔f1 3 ♘d2+ ♔e1 4 ♘f3+ ♔d1

If Black jettisons the a-pawn in an attempt to spoil the fun, White gains sufficient material advantage after 4...♔f1? 5 ♘xh2+ ♔e1 6 ♘f3+ ♔f1 7 ♔xg7 to be able to force mate in less than eighteen moves by brute force.

5 ♗b3+ ♔c1 6 ♗a3+ ♔b1 7 ♘d2+ ♔a1



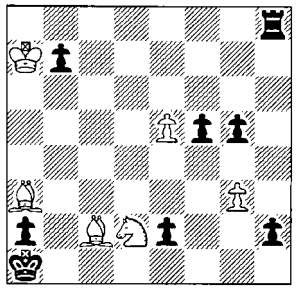
The black king has moved in straight line from h1 to a1. This obviously represents some sort of geometrical task achievement since it is not that easy to get such things to happen in studies (or problems). There have also been switchbacks by all of the white minor pieces.

White's next move threatens mate and there follows the second phase of this study/problem in which Black uses a desperado rook to stave off the inevitable as best he can. White cannot take the rook on the h-file because Black can promote on h1 with check if he does and it turns out (in fact the position was designed so as to create this effect) that in order to mate in eighteen the white king must also make a corner to corner king march, ending on a8.

8 ♗c2 ♖xh7+ 9 ♔g8 ♖h8+ 10 ♔f7 ♖h7+ 11 ♔e8

The careless 11 ♔g6? ♖h6+ 12 ♔f7 ♖b6 would win for Black.

11...♖h8+ 12 ♔d7 ♖h7+ 13 ♔xd8 ♖h8+ 14 ♔c7 ♖h7+ 15 ♔b8 ♖h8+ 16 ♔xa7



16...♖a8+

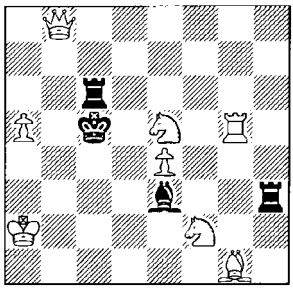
Desperate, but the only way to stop 17 ♘b3 mate. Fortunately it also forces the white king to complete the corner to corner march, matching the accomplishment of the black king earlier.

17 ♔xa8 e1♕ 18 ♘b3#

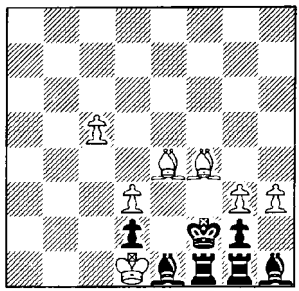
It did not matter what Black played on his 17th move since 18 ♘b3 mate was unavoidable. An unusual composition with unusual virtues and flaws, but one which deserves its place in the world even if it does not deserve a place in this book. Authors have egos too and are often more partial to their own work!

Exercises

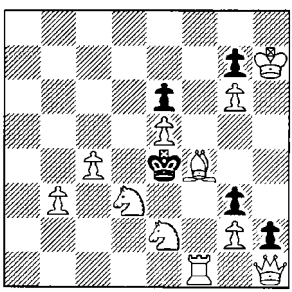
See how well you do on the following three problems. They are not easy, but they are well worth the effort. Solutions are at the end of the book.



8.24 Mate in 2 PG
B.P.Barnes, 2nd Prize
Ring Tourney, Evening News
Brian Harley Award 1959



8.26 Mate in 12 DFG
H-P.Rehm, 3rd Prize
3rd FIDE Tourney 1966



8.25 Mate in 3 PDG
C.A.L.Bull (after Sam Loyd)
Natal Mercury 1915

Chapter Nine

The Weird and the Wonderful: Unorthodox Problems

'There is but one step from the sublime to the ridiculous.'
Napoleon (attributed)

In our penultimate chapter, we take a look at just a few of the composing genres developed in the unceasing quest for spectacular chess. The ones we shall sample are Helpmates, Selfmates, Series-movers and lastly Retrograde Analysis. Each represents a variant of the game and of 'orthodox' compositions, yet each in its own way enhances our enjoyment of the elements and offers different fields for exploitation by the composer.

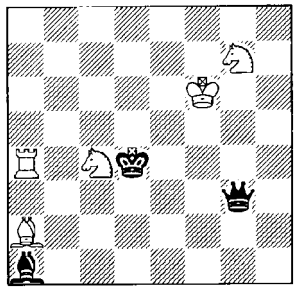
Helpmates

In the helpmate, White and Black cooperate to mate Black in a fixed number of moves. Unless otherwise stated, Black moves first and, unlike any other genre, it is the Black move which is given first in each move-pair. One implication of the helpmate form is that a line of play contains a half-move more than orthodox problems; for example, in a Helpmate in two, Black moves, then White moves, then Black moves, then White mates. A second implication is that helpmates do not have variations in the normal sense. Thus, in order to obtain the effect of 'variations on a theme' which is so desirable to the strategic composer, various devices are resorted to, including permitting more than one solution, or using some method of *twinning*.

No. 9.1 is a splendid example of excellent thematic content allied to impeccable economy of material.

(see following diagram)

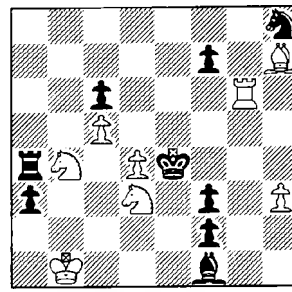
The solutions are as follows:
1 ♕d6+ ♘e6+ 2 ♔d5+ ♘e5# and **1 ♕f3+ ♘f5+ 2 ♔e4+ ♘b2#**.



9.1 H#2 PG

Two solutions

I.Abdurahmanovič & M.Mladenovič,
2nd Prize Arnhem TT 1981



9.2 H=2 PG

Two solutions

G.Bakcsi, 1st Prize
Feenschach 1966

In both solutions, all the moves are checks. This is paradoxical, because one would expect checks to both White and Black to be disruptive to the co-operation between the two sides. Excellent unity is provided by the two prospective self-blocks with the queen, and by the mates involving the two batteries which share the c4-knight as the front piece. Such geometric correspondence between the lines of play is typical of many good helpmates.

The paradox of material also has a special flavour in the helpmate form. The surprising No. 9.2 might well prove quite hard to solve if you were not aware of this.

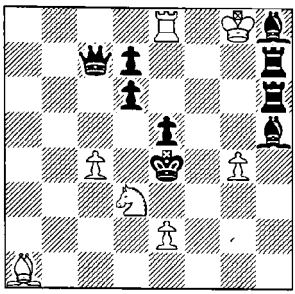
(see following diagram)

The solutions are:
1 ♗xd3+! ♘c2 2 ♔f4 ♖g4# and **1 ♖xb4+! ♘b2 2 ♗d5 ♖d6#**.

In both cases, a white knight is captured – with check, moreover – for the sole reason that it prevents the black king from entering the mating net. The question we are by now accustomed to ask about the paradox of material arises again: why is it that only these solutions work? In the helpmate, the question has an intriguing angle, because we would expect the material that is removed to be easy to use for mating purposes when both sides are co-operating.

Again, the play in the two lines is closely related: Black captures a knight with check, the other knight interposes, the black king moves into position and White delivers mate, the remaining knight guarding a flight square.

The two-move helpmate is capable of a huge range of geometric expression. No. 9.3 is a charming interpretation of the organ pipes:



9.3 H#2 G

(a) Diagram (b) w♔g8-g5

M.Myllyniemi, 1st Place
Nordic Championship 1967

a) **1 ♗g7** (interfering with the h7-rook) **1...♗xe5 2 ♖g6** (interfering with the h5-bishop) **2...♗f6#** (shutting off both bishop and rook).

The second solution (with the white king on g5) is based on a twin in which the white king is placed on g5 and a new Helpmate in two exists. The solution is easily seen because it is the exact parallel of 'a':

b) **1 ♗g6 ♘xe5 2 ♖g7 ♘f7#**. The geometrical content speaks for itself here, but note how the position of the white king determines the order of Black's moves, and incidentally protects f4 in 'b'.

Now take a look at the splendid sub-miniature triplet No. 9.4.

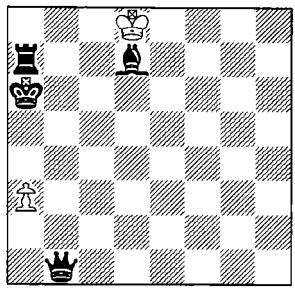
(see following diagram)

The solutions run:

a) **1 ♗a5 ♔e7 2 ♗a4+ ♗d6 3 ♖a6+ ♔c5 4 ♕b4+ axb4#**.

b) **1 ♗e5 a4 2 ♗c7+ ♔d7 3 ♗a5+ ♔c6 4 ♕b5+ axb5#**.

c) **1 ♖a8+ ♔c7 2 ♔a7 a4 3 ♗a6 a5 4 ♕b6+ axb6#**.



9.4 H#4 GF

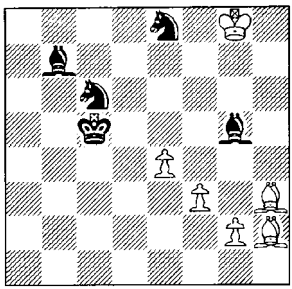
(b) ♗d7-d4 (c) ♗d7-d3

M.Vukčević, Special Prize
Magyar Sakkszovetzeg 1979

This little sparkler has a great deal to recommend it: three echo-mates, each of which is an *ideal mate* – a model mate in which every piece on the board, black and white, is used – as well as play which manages to retain interest in spite of the solver's foreknowledge. Yet we feel that it has something extra which is, perhaps, a special attraction of such works: flow. Even though it is a mere four moves long, there is a strong feeling that one can lay the three solutions end-to-end in the sequence 'a' to 'c' and produce a twelve-mover in which the pieces swirl up the board in a flowing movement. This end-to-end effect seems applicable only when there is great unity between

the different solutions.

The next example is a move shorter and has corresponding play as well as echo-mates.



9.5 H#3 GF(D)
Three solutions
F.Abdurahmanović & O.Cvitić
2nd Prize, Mat 1981

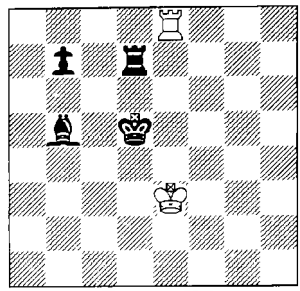
Yet we believe that it, too, has the same quality of flow, because the unified solutions again progress, rank by rank, up the board:

1 ♔b6 e5 2 ♔c7 e6+ 3 ♔c8 e7#
1 ♗d8 f4 2 ♗d6 f5+ 3 ♔d7 f6#
1 ♗e7 g3 2 ♗d6 g4+ 3 ♔e6 g5#.

The (D) symbol here relates to the two prospective self-blocks by the black bishop on d8 and e7.

The helpmate can also be a very successful vehicle for Bohemian dreams. No. 9.6 achieves a symmetry between the orthogonal and diagonal both in terms of play and mates, which is sheer perfection.

(see following diagram)



9.6 H=4 GP(D)
(b) a1=h8
J.Kricheli, 1st Prize
Ideal Mate Review 1983

The position solves as follows:

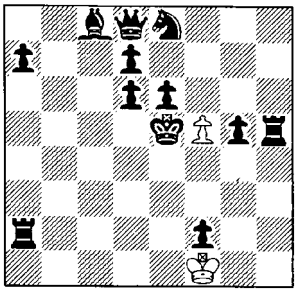
a) **1 ♖d6 ♗f4 2 ♖a6! ♗f5 3 ♗c6 ♗e6 4 ♖b6 ♖c8#**. Note the cute waiting move by the black rook.

Now, the legend 'a1=h8' means that these two squares trade places, that is, the board is turned upside down! As a consequence, the pawn now guards the square on which the mate occurred in the first solution, but it no longer guards the mating square of the second:

b) **1 ♖f2 ♖h1 2 ♗d1! ♗e6 3 ♔f3 ♔f5 4 ♗e2 ♖h3#**. This time it is the bishop which makes the waiting move, producing a perfect echo mate at right angles to the first. Again, the special value of these mates is that they are *ideal mates*. A breathtakingly beautiful work.

The helpmate can well be used to produce a range of graphic effects. Look at the solutions to No. 9.7, which

manages to dispense with the services of all but one white pawn:



9.7 H#4 G(P)
Four solutions
F.Abdurahmanović
1st/2nd Prize, Mat 1978

1 ♔f6 ♔g2 (amazingly, this is a waiting move) **2 ♔g7 f6+ 3 ♔h8 f7 4 ♖h7 f8♕#**

1 ♔d5 fxe6 2 ♔c6 e7 3 ♔b7 exd8♕ 4 ♔a8 ♕xc8#

1 ♔d4 fxe6 2 ♔c3 exd7 3 ♔b2 dxc8♕ 4 ♔a1 ♕c1#

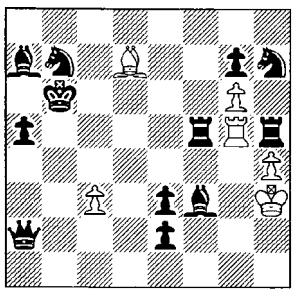
1 ♔f4 f6 2 ♔g3 f7 3 ♔h2 fxe8♕ 4 ♔h1 ♕xh5#

The king is mated in all four corners – a formidable feat in itself, given the ultimate in white economy, and here achieved with satisfactory variety in the play.

Diagram 9.8 takes the Loshinsky Magnet to even greater heights:

(see following diagram)

The solutions are:
a) **1 ♖b5 ♖c5 2 ♖d5 ♖xc6#**
b) **1 ♖c5 ♖d5 2 ♖e5 ♖d4#**
c) **1 ♖d5 ♖e5 2 ♖f5 ♖e6#**



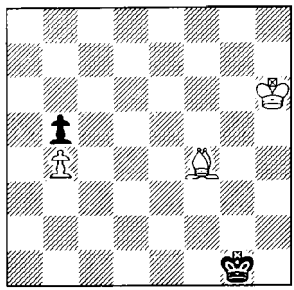
9.8 H#2 G(F)
(b) b♖e4 (c) b♔f6
V.Rudenko & V.Chepizhny
2nd Prize, Olympic Tourney 1984

A magnificent conception! Have you ever seen three rooks behave in such a manner? A black rook is followed three times by the white rook, which is followed by the other black rook! In addition, not content with this grandiose effect, the composers have provided three pretty, unified and exact echoes, in which one rook performs an interference and the other a self-block.

No. 9.9 is an example of the way in which a longer helpmate can deliver a powerful flow impact.

The sparse force emphasizes the delicious accuracy of each one of the twenty half-moves:

(see following diagram)



9.9 H#10 FD(P)(G)
L.Zoltan, 2nd Prize
Miniature Tourney
Tipographia TE 1969

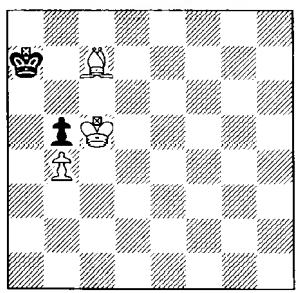
1 ♔f2 ♗c7!

The bishop has to give the king access to e3, but its choice of destination foresees events eight moves ahead.

2 ♔e3 ♔g5 3 ♙d4 ♙f4 4 ♙d5 ♔e3

The route which the white king is constrained to take is a subtle demonstration of chessboard geometry.

5 ♙c6 ♙d4 6 ♙b7 ♙c5 7 ♙a7!

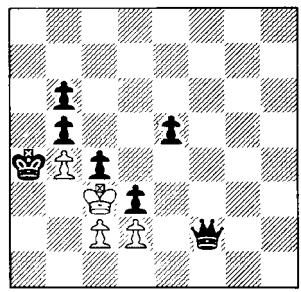


Beginning a cute triangulation. What makes it surprising is the elaborateness of the manoeuvre and the fact that there is no alternative sequence whereby the king can arrive at his destination in time, whilst also allowing White to get his moves in.

7...♙xb5 8 ♙a8 ♙c6 9 ♔a7 ♗b6+ 10 ♙a6 b5#

A very light work, but possessed of all four elements in some measure and a welcome break from the intricacies of strategy.

Our final helpmate shows something a little different:



9.10 H=3 GP(D)
(b) Pb5-a3
H.Aloni, 1st Prize
Israel Ring Tourney 1962

a) **1 ♕f7! ♙b2 2 c3+ dxc3 3 ♕b3+ cxb3#**

b) **1 cxb3 en passant!**. There is a convention of problem chess stating that if one can prove that White's last move must have been an initial double move of a pawn (here b2-b4), then the *en passant* capture is allowed. In this case the b-pawn could not have come from b3, where it would have been giv-

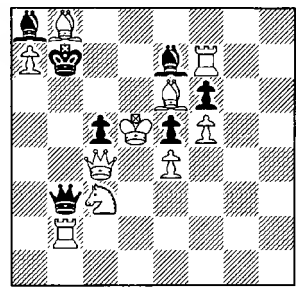
ing check. The white king could not have moved either because b2, b3, and d4 are the only vacant squares it could have moved from, and, in each case, the king would have been in an impossible check. Note especially the case of b2: we have to ask ourselves what was Black's last move, to discover that the a3-pawn could not have played to its square on the previous move. This process of proving something about the legality of a position is called *retrograde analysis* (or *retro-analysis*).

1...♔xd3! 2 ♕xd2+ ♔c4 3 ♕a5 cxb3#.

Usually, the 'special move' (castling, en passant, promotion) is the centre-piece of the problem and constitutes the major – if not the sole – aesthetic attraction. In en passant problems particularly, we would also expect the construction to show at least a little strain because of the retro-analytical requirement. In Aloni's work, the special move is unusually well integrated and the problem has plenty of artistic content. Even the e5-pawn is required for reasons other than making the retro-analysis work (it ensures that the white king could not have come from d4 in 'b'): it prevents a nasty cook in 'b' by 1 ♕e1/f1 ♔d4 2 ♕h1 ♔xc4 3 ♕b3+ cxb3#. In the actual solution, the hesitation by the king, making a waiting move in a direction away from the action, is not much less of a surprise than the en passant. In 'a', Black's first move has a hint of depth – about as much as you can expect in a three-move helpmate with such light material. Above all, the problem possesses a satisfying unity by virtue of the mates being delivered by the same pawn on the same square, but capturing a different piece.

Selfmates

In a selfmate, White plays first and forces Black to mate White in a fixed number of moves. No. 9.11 will give some of the flavour of the intriguing kind of strategy involved.



9.11 S#2 GP
W.Weber, 1st Prize
Ring Tourney
Deutsche Schachblätter 1949

If it were Black to move, 1...♔b6 would be mate, but he would strenuously avoid making this move if given the choice!

The key is **1 ♘a4** which is a pure waiting move. Black's only legal moves are with the pinned queen, and each one makes a different error:

1...♕xb2 allows the queen to be recaptured whilst simultaneously releasing the b6-square with **2 ♘xb2**, leaving Black a single legal move, **2...♔b6#**.

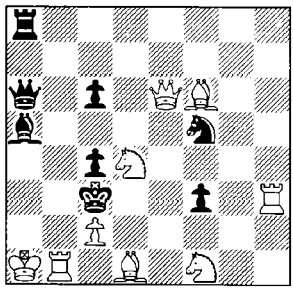
Running Black out of alternatives except for a mate is one of the two ways selfmates operate. The other technique is to check the black king in such a way that the reply has to be a mate of White. The remaining variations of the problem use this method.

1...♕b4 unpins the white queen but maintains a guard on c4, allowing **2 ♕a6+!** which forces **2...♗xa6#**.

1...♕b5 is the 'star' variation. It prevents 2 ♕a6+, but this time White has the clever **2 ♘xc5+! ♗b6#**, because from b5 the queen pins the c5-knight, preventing it from interposing on b7.

Finally, we have **1...♕b6**, guarding e6 and allowing **2 ♗c8+! ♔xc8#**. This 'un-block' is, in fact, the opposite of the self-block in orthodox problems.

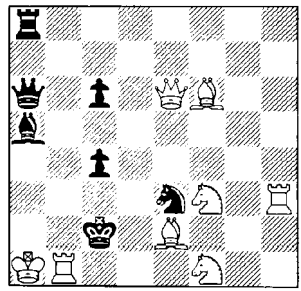
This distinctive slant on geometric devices is one of the main attractions of the selfmate. The following selfmate by Rudenko (corrected by John Rice) shows this with great sophistication.



9.12 S#3 GD
V.Rudenko, 1st Prize
Gazeta Czestochowa 1977
Correction by J.M.Rice

The key is **1 ♗e2!** which, by unguarding the c2-pawn, threatens 2 ♘b5++! ♔xc2 3 ♕xc4+ ♗c3#. Now, because Black has a double-barrelled battery on the a-file, the threat cannot be ducked by moving the queen or the rook off the file. Capturing the knight with **1...♘xd4** is a side variation; the c2-square is now unprotected, allowing the neat **2 ♕e3+ ♔xc2 3 ♕d2+ ♗xd2#**.

The remaining two defences protect the c4-pawn: **1...♘d6 2 ♘xc6+! ♔xc2 3 ♘b4+ ♗xb4#**. The reason why this works is that the knight on d6 interferes with the queen on e6 – if it were not for this, 3...♗xb4 would not be mate because of 4 ♕xa6. Similarly, **1...♘e3 2 ♘xf3+! ♔xc2**



and now **3 ♘e1+ ♗xe1#**. This time, the e3-knight interferes with the h3-rook, preventing it from interposing on a3. These interferences of Black on White cannot, of course, be used positively to force a mate in an orthodox problem. The two variations are rounded off by the device contained in the threat, which has a normal shut-off of Black by White.

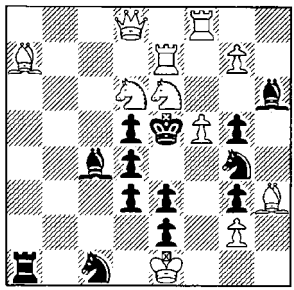
This problem, even though only a three-mover, is an excellent illustration of negative depth. The moves 1...♘d6 and 1...♘e3 turn out to be damaging to Black only on the third move. The fact that the white knight is obliged to remove a black piece (c6-pawn, f3-pawn) from the line on which the black knight interferes increases the obscurity of Black's error.

On top of all this complexity, you might still have the energy to spot the neat effect of having the a5-bishop deliver mate on all the squares between e1 and b4.

In the first edition, it turned out that the version of this problem had two 'cooks' as well as other flaws. In desperation we turned to John Rice, who found an ingenious method of correcting not only the cooks, but also a ruinous 'dual' (two continuations where there ought only to be one). Unfortunately, as so often happens, John's correction introduced a new flaw in that the bishop making the key move is virtually useless in the play, having just the constructional function of preventing the dual 1...♘xd4 2 ♕e1+ (in addition to 2 ♕e3+). Perhaps someone – even Rudenko himself – can find an even better way of setting his beautiful idea, but we would not bet on it.

No. 9.13 is a typical modern blockbuster which shows a particularly powerful combination of geometry and depth.

(see following diagram)



9.13 S#5 GD(P)(F)
V.Alaikov, 1st Prize
Tungsram Tourney 1980

The key **1 ♕c7!** sets up a second battery and so threatens 2 ♘xg5+ (opening the line of the ♗h6 to d2!) 2...♔f4 3 ♘e6+ ♔e5 4 ♘xc4++ (the second battery fires, sending the next knight on his way) 4...♔e4 5 ♘d2+ exd2#, at last exploiting the opening of the line of the h6-bishop to d2.

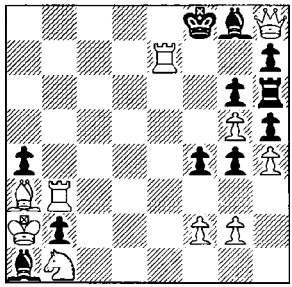
The obvious way to meet this threat is by playing **1...♗xg7**, removing the bishop from the fatal diagonal. But, as you no doubt guessed, this puts the bishop in a position to be dragged (kicking and screaming, no doubt) to a mating square: **2 ♘xd4+ ♔f4 3 ♘e6+** (again this knight returns to the stables, having cleared the line, and the second knight takes over to deliver the finish) **3...♔e5 4 ♘b5+ ♔e4 5 ♘c3+ ♗xc3#**.

The last variation begins **1...♖a2**, which prepares to meet the 5 ♘d2+ of the threat with 5...♖xd2!. This makes the mistake of guarding the e2-pawn, allowing the prancing knights to re-

verse their roles: **2 ♘xc4++ ♔e4 3 ♘d6+** (the knight returns to d6, having removed the protection of d3) **3...♔e5 4 ♘c5+ ♔f4 5 ♘xd3+ ♘xd3#**.

A memorable work, featuring positive depth in the threat, set off by the negative depth in the two variations, scintillating battery-play, reversal of the knights' roles in parallel variations, all topped off by multiple switchbacks of the knights.

In common with all genres, the selfmate has often been used to display entertaining graphic effects. No. 9.14 is an impressive example.



9.14 S#10 GDF(P)
J.Balazs
Blathy Memorial 1941

Players will readily recognize the stand-off situation of the pawn configuration in the lower right quadrant of the board. It prevents White from losing a move, which would oblige Black to mate by ...axb3#.

1 g3!

White frees e3 for later use.

1...f3

Not 1...fxg3? 2 fxg3 and Black's only legal move is mate.

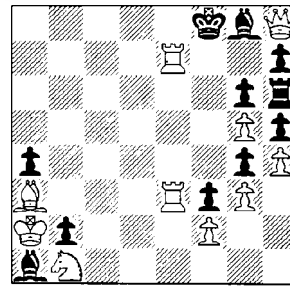
2 ♖e3+

The rook occupies the freed square, but what is the purpose?

2...♔f7 3 ♖b4!

Black's last move has unpinned the rook, which repays the favour by interfering with the a3-bishop, allowing the king to shuttle back. As yet, the point of this elaborate little square-dance is lost in the mists of the future.

3...♔f8+ 4 ♖c4+ ♔f7 5 ♖c5 ♔f8+ 6 ♖d5+ ♔f7 7 ♖d6 ♔f8+ 8 ♖de6+ ♔f7 9 ♖e7+ ♔f8+



The rook has arrived at the top of the staircase, meaning that the black king is now, at last, starved of a move.

10 ♖b3!

The rooks have traded places and somehow White has lost a move! The law says Black must now play:

10...axb3#

The staircase and Platzwechsel fit in beautifully here with White's deep method of losing a move. The relative length of the solution provides a flow effect which is considerably enhanced

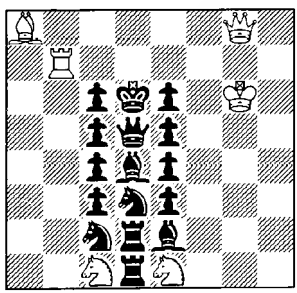
by the careful single-stepping of the two protagonists.

Series-movers

In series-mover problems, one side plays an uninterrupted series of a fixed number of moves, after which the other side makes a single move to fulfil the stipulation; during the course of the series, checks are illegal, except on the final move.

In spite of their artificiality, series-movers are great fun and fully capable of embodying the four elements. Moreover, they represent a kind of thinking very familiar to players, who are accustomed to developing a plan, particularly in the early middle-game, comprising a sequence of moves for their side. Series-movers put you in control of the position; all you have to do is construct the plan!

No. 9.15 is a series helpstalemate, of the same type as the amazing composition 5.8.

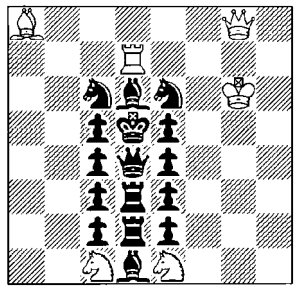


9.15 SH=19 PGFD
P.Kahl
Die Schwalbe 1955

To recap, what is required here is for Black to play a sequence of nineteen moves, after which White plays a single move stalemating Black. Given that Black is in possession of his full birthright of pieces, this looks like a very tall order:

1 ♘cb4 2 c2 3 c3 4 c4 5 ♘c5 6 ♖d3 7 ♖1d2 8 ♗d1 9 e2 10 e3 11 e4 12 e5 13 ♘e6 14 ♗c5 15 ♕d4 16 ♔d5 17 ♗d6 18 c5 19 ♘c6

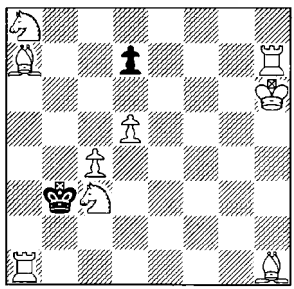
and now White plays **♖d7 Stalemate**.



This extraordinary problem possesses the four elements in good measure. It is founded on a paradox: how can it be possible to parcel up the entire black army in a mere nineteen moves? It is deep, because all but the last few moves have a point which is hard to visualize in advance. It achieves a highly ambitious geometric theme, an elaboration of the Platzwechsel in which there is a *cyclic shuffle* of the black pieces; that is, piece A makes room for piece B, which makes room for piece C... until piece P makes room for piece A. In spite of the extreme in-

tricacy of the geometric idea, the flow of the problem is also good. In particular, the order of moves is cleverly constrained. For example, the d3-knight must traverse c5 on its way to e6, because f4 is taboo owing to the illegal check. The knock-on effect of this circumstance on the rest of the solution is fascinating to unravel. A truly awesome work!

Has it crossed your mind to try your own hand at composition? For encouragement, we offer an account from one of your authors (JL), of the making of a series helpmate.



9.16 SH#33 FGP(D)
J.Levitt
The Problemist 1994

In this problem, your task is to find a series of thirty-three Black moves in a row (neither giving nor walking into check), so as to reach a position where White can mate in one. (If you find a solution in less than thirty-three moves, you have 'cooked' the problem.)

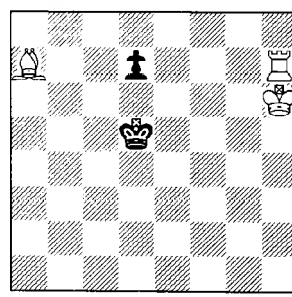
It is not easy to solve; if you can manage it in less than an hour, you will be doing better than several masters and grandmasters who have tried it! The difficulty is due to depth, the final mating position being quite hard to spot.

Since there is no immediate mate possible (the king cannot get to a8 for the purpose of setting up d5-d6# without capturing the rook on a1, thus defeating the purpose!), it is necessary to promote the black d-pawn. To do this Black must remove the d5-pawn and all its defenders. The solution runs as follows (the moves given are all by Black):

1 ♗b2 2 ♗xa1! 3 ♗b2 4 ♗xc3! 5 ♗xc4 6 ♗b5 7 ♗a6 8 ♗b7 9 ♗xa8!

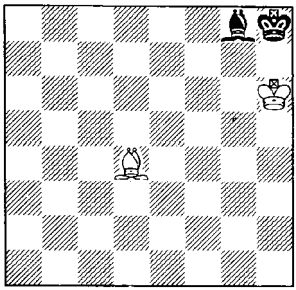
Black must take either the a7-bishop or the a8-knight to obtain a path to the bishop on h1.

10 ♗b7 11 ♗c7 12 ♗d6 13 ♗e5 14 ♗f4 15 ♗g3 16 ♗h2 17 ♗xh1! 18 ♗g2 19 ♗f3 20 ♗e4 21 ♗xd5!



So where is the mate? The astute reader might have noticed that the black king has visited three corners already...

22 ♔e6 23 d5 24 d4 25 d3 26 d2 27 d1♗! 28 ♗c2 29 ♗xh7! 30 ♔f7 31 ♔g8 32 ♔h8 33 ♗g8 and White mates with **♗d4#**.



As I remember it, the genesis of this problem went something like this: I woke up one morning with an idea in my head. Two minutes later, the final twelve moves of the problem were ready! It would have been possible to present this final stage as a miniature, but I decided to try to extend it. The bishop on h1 came next and then the idea to have the king visiting all four corners. The hard work was just beginning! Technically, the difficulty in composing such problems is keeping the solution unique – this also applies to move order. There must never be two ways to reach the goal. For example, if a king on a1 must go to b3 during the course of the solution, the problem would be ruined if there were a choice of getting there via b2 as well as a2. The reader might find it interesting to play through the solution again, seeing why each move is precise.

Several hours and a couple of phone calls to John Nunn later, the problem was cast in its final form. Aesthetically, the solution contains all of our four elements. There is always paradox in capturing white pieces when it is White who is supposed to be delivering mate, but the main one is undoubtedly that of the rook on h7. This rather surprising destruction of white force has been too big a hurdle for many would-be solvers. The solution flows for thirty-three moves and the hidden final mate has already been mentioned (depth). The most striking geometrical effect is the black king's visiting of the four corners of the board. There is also an *excelsior* – the black pawn making its full-length journey to promotion – as well as an underpromotion to a bishop, for those who like that sort of thing. In addition, the final mate is economical, leaving no 'extras' on the board.

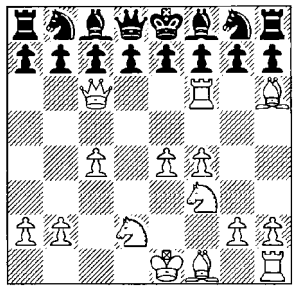
Perhaps the composer is overpartial to his own work, but this position has given me more pleasure and sense of achievement than any single game I have yet played. Unfortunately, it is rather better technically than most of my games too!

A Step Backwards: Retrograde Analysis

For our final offering we take a backward look – but of a very creative kind. For the field of retrograde analysis is all about the presentation of positions whose history has to be unravelled, sometimes as far back as the initial position of the game. We have already

had a foretaste with No. 9.10. In that case, it was possible to prove that Black could capture en passant because White's only legal last move had to be the double jump of a pawn from its initial square. Many retrograde analysis problems are concerned with *proof games*, in which the solver must discover the unique 'game score' leading to the diagram position.

A pretty case in point is No. 9.17.



9.17 White to Play GP(D)(F)
Position after Black's 12th move.
How did the game go?
U.Heinonen
The Problemist 1991

We have here the position after twelve moves of a legal game of chess, and we must discover how the game went. How does one tackle such a problem? With careful, painstaking logic. The first stage should be to count the minimum number of White moves involved in reaching the diagram position:

Pawns on c4, e4, f4	1 move each	3
Knights on d2, f3	1 move each	2
Bishop on h6	1 move	1
Queen on c6	2 moves	2
Rook on f6	4 moves	4
Total		**12**

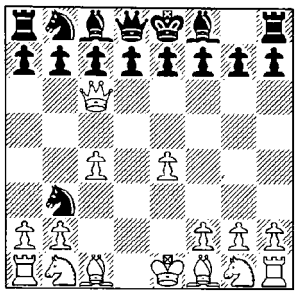
Why four moves for the rook to get to f6? Since the rook can only get out after the queen's bishop and knight are developed, the route has to be a1-c1-c3-f3-f6 (four moves). So there is no time to waste. Black, meanwhile, can have moved only his knights and rooks. Move-order logic now predominates and, as you will see, miraculously restricts Black to just one surprising possibility.

There is no white d-pawn in the final position. It had no time to move, so it must have been captured on its original square. This capture must have been performed by a black knight. After the knight moves away, White plays the sequence of moves:

A) ♗h6, ♘d2, ♖c1, ♖c3, ♖f3, ♖f6, f4, ♘(g)f3

This sequence comprises eight moves. It follows that the black knight must have captured the d-pawn and moved away all in the first four moves. The first three Black moves are **1...♘f6, 2...♘e4, 3...♘xd2**. Meanwhile, White cannot waste his first four moves. He must play c2-c4, e2-e4, and queen to c6 in some order. The e-pawn is still on the board, so it cannot have been captured by the black knight *en route* to d2. It is now possible to deduce the first four moves by each side:

1 c4 ♘f6 2 ♕a4 ♘e4 3 ♕c6 ♘xd2 4 e4 ♘b3

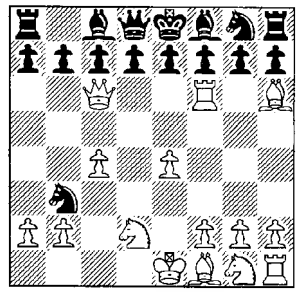


The queen must go via a4 to get to c6 in two moves. The move 4...♘b3 is necessary since the knight must get out of the way of the ♗c1 immediately, it cannot capture any white piece, and cannot go to f3 as this would be check, preventing 5 ♗h6.

We are close to the answer now. In the final position, there are white pieces on h6 and f6 and a black knight on g8. In the sequence of moves above, **A)**, White plays ♖f6 in six moves' time, so Black has only five moves to get a knight to g8. The knight currently on b3 simply cannot get back in time. What about the other knight? The squares c6 and e4 are unavailable owing to enemy occupation, which leaves a unique route:

5 ♗h6 ♘a6! 6 ♘d2 ♘b4 7 ♖c1 ♘d5 8 ♖c3 ♘f6 9 ♖f3 ♘g8 (just in time) **10 ♖f6**

Finally, the other knight must get back to b8. Again, there is only one way. Meanwhile, White completes his deployment:



10...♘c5 11 f4 ♘a6 12 ♘gf3 ♘b8

So there we have it! We have proved that the black knights have swapped positions! There is a geometrical symmetry about this interchange (Platzwechsel) and it is surprising, that is, paradoxical, too. However, the main interest lies in the 'flow' of logic involved in the solution. The tension is maintained right until the end. One can also talk of the depth of the whole manoeuvre, even if no single move is especially deep (5...♘a6! is probably the deepest). Real foresight is needed to determine the right move order for White.

It is difficult to apply our elements precisely here because we are dealing with an unusual type of problem, a retrograde analysis problem. In particular, the notion of depth is turned on its head. As in a detective story, the evidence (the position of the pieces) is there for everyone to see, but it takes skilful deduction to uncover what the black knights have been up to. The problem has the attraction of a complex puzzle.

Those who doubt the artistic value of such a problem will not find it hard to attack. Is it not just a trick, a gimmicky ploy? It is possible to attack any work of art, and you will have to judge for yourself. Even if it is just a 'glorified card trick', it is an extremely clever one!

The Cambridge mathematician G.H.Hardy viewed chess from a very mathematical perspective. In his autobiographical book *A Mathematician's Apology* (1940), he tried to justify the value of a life spent studying mathematics. In it he had a go at chess problems:

'A chess problem is simply an exercise in pure mathematics (a game not entirely, since psychology also plays a part) and everyone who calls a problem "beautiful" is applauding mathematical beauty.'

And later:

'A chess problem is genuine mathematics but it is in some way trivial mathematics. However ingenious and intricate, however original and surprising the moves, there is something essentially lacking. Chess problems are unimportant.'

It is fruitless to argue with somebody taking such a narrow perspective. Perhaps Shakespeare would not be valued highly either, since his work would not even qualify as genuine mathematics? We hope the examples in this book have given the reader every reason to disagree with Hardy, but maybe he is best answered by another mathematician, Augustus De Morgan:

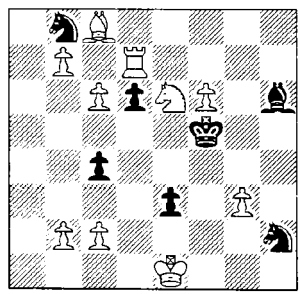
'It is easier to square the circle than to get round a mathematician!'

Exercises

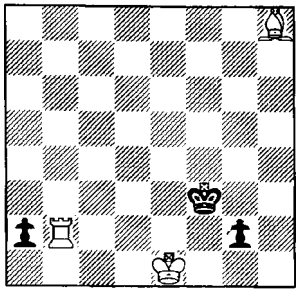
Three unorthodox problems for you to solve. In No. 9.18, there is an unusual twinning mechanism. First solve the diagram as a normal helpmate in two. Then remove the white knight on e6 and solve the new helpmate that results. Then remove the rook on d7 without replacing the knight for another helpmate. Finally remove all the white pieces for the last instalment!

No. 9.19 is a series helpmate in which there are two solutions, one of which is especially tricky.

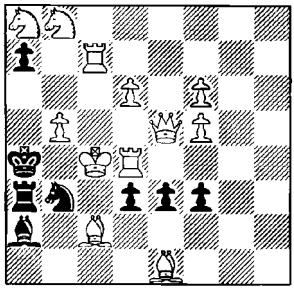
No. 9.20 is a hard selfmate; most practical players will probably find this a real challenge!



9.18 H♯2 GP(F)
(a) Diagram (b) Remove ♘e6
(c) Further remove ♖d7
(d) Further remove ♗c8
G.Bakcsi, 1st Prize
Magyar Sakkszovetzeg 1985



9.19 SH#8 GF(P)
2 Solutions
B.Lindgren
Mat 1984



9.20 S#3 PGDF
D.G.McIntyre
Alain White Album 1920

Chapter Ten

Further Considerations on Chess Aesthetics

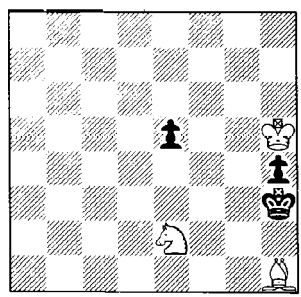
'Judgment of beauty can err, what with the wine and the dark.'
Ovid, *The Art of Love*

Feedback on The Theory

In general the first edition of 'Secrets' was well received and the reviews were very encouraging. A number of commentators across the problem world too have taken on board our theory of paradox/depth/geometry/flow and references to this terminology are quite common when, say, reading through prize awards for problems published in a given publication over a two year period.

Of course not everybody is thinking in terms of our categories, and there are many ways to look at the aesthetics of a chess composition (or game). For example, judges discussing merits of a study might talk about the virtues of pieces moving into their final position rather than starting there. It is assumed that this is an aesthetic virtue, but why? In terms of our theory such movement will likely increase both the flow and the paradox (you can be taken more by surprise after natural movements rather than in a set-up position – even the very term 'set-up' implies one should be suspicious and looking around every corner).

Consider another aesthetic criterion like 'purity of aim'. Here we need a simple example to illustrate what we are talking about.



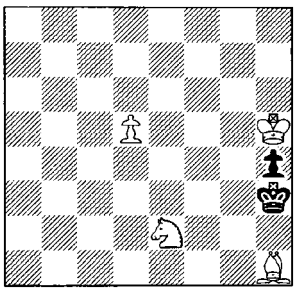
10.1 Mate in 4

The solution is straightforward enough: **1 ♗e4 ♔h2 2 ♔g4 h3 3 ♔f3 ♗h1 4 ♔g3#**. The move 1 ♗e4 could be criticized for a lack of purity of aim since it achieves two things:

1) It blocks the black pawn on e5.

2) It passes the critical f3-square, allowing the white king to cut off the bishop on move three.

Now consider the following related position, attained by changing the black pawn on e5 to a white pawn on d5.



10.2 Mate in 4

The solution is identical: **1 ♗e4 ♔h2 2 ♔g4 h3 3 ♔f3 ♔h1 4 ♔g3#**.

Now which of these two problems is better? The difference is marginal and neither is anything special, but probably the second. There is more 'purity of aim' in the move 1 ♗e4 in the second problem since its sole purpose is to cross the f3-square (there is no longer a black pawn on e5 to block). This makes the move harder to find and understand and it seems a little deeper. So in way, increased 'purity of aim' will tend to increase depth and paradox.

Later in this chapter we will address the issues of difficulty and economy, but there are always more terms used in the assessment of chess positions than it is possible to list. Take 'unity' for example. The property of 'having as much variety as unity will allow' is often considered a virtue. In terms of the PDGF theory, this is because unity usually relates to the (extended) geometry of a position, often a repeated abstract pattern being what unites, say, different phases of a problem.

In a similar way I am reasonably confident that the PDGF theory can be applied to almost all descriptive justifications of why one problem is better than another, but it is interesting to consider some very abstract questions:

1) Are there any positions that are aesthetic which do not involve paradox, depth, geometry or flow (PDGF)?

2) Does any position that involves any PDGF have aesthetic value?

Even if you assume one and two above are answered in the positive, could there be a further principle? One reviewer, an academic philosopher by trade and a leading correspondence player by hobby, Peter Millican, described the book ('Secrets') as a halfway house. It does the work of finding the elements but has not tied up the theory.

To be quite honest I am not sure how it is possible to tie up a theory of this kind. It is often impossible to prove a negative and proving there is

no other aesthetic criterion is not something we intend to attempt.

From an abstract, theoretical perspective there are three possibilities:

1) The categories are too narrow. This would imply that aesthetic positions without the PDGF qualities do exist.

2) The categories are about right. This would imply the theory 'works'.

3) The categories are too broad. This would imply there could be positions exhibiting the PDGF elements, but which are not aesthetic.

Ultimately a lot depends on interpretation. What one reader considers deep or paradoxical may be very different from what another reader considers deep or paradoxical (after all these concepts are relative to the reader's experience). All we can add is that so far the authors have not come across anything to shatter their belief in the utility of their theory.

Another consideration on an abstract level is how many elements should be involved in a theory? Here we have four, paradox, depth, geometry and flow. What is the optimal number of elements?

Two? For example a two way split between paradox and other types of aesthetic quality. This might well prove simplistic and not refined enough. (Probably reminds you of someone you know...)

Three? A number of theories have three elements and are useful and communicative (for example Freud's id/ego/superego).

Four? Personally I like four element theories, since four offers more scope for subtle distinctions than three, and also the human brain is well suited to thinking in terms of four possibilities. North, East, South, West for example.

Five or more? Some people can cope with five but theories with six or more elements are putting a strain on the human memory's ability to consider all the elements. There are just too many for the brain to hold simultaneously in mind. Thus such theories fail in communication value and lose their value. Imagine having eleven different aesthetic elements; nobody could grasp such a theory as one - and so I believe it would be entirely pointless (even in the unlikely event that reality provided a natural eleven way split).

Power and Personal Preference

One perspective on chess aesthetics that we have not given enough weight to as yet is what might be called the 'will to power' viewpoint. Reuben Fine, one of the top chess players in the world before he dedicated himself to his chosen profession of psychoanalysis in 1951 (someone famously described Fine's conversion as 'a great loss for chess and at best a draw for psychoanalysis'), once described the aesthetic qualities of a move in terms of 'concealed aggression' and 'the greatest capacity for victory'. Could this be a deeper principle behind chess aesthetics?

Is it the case that when playing chess anything that increases your

winning chances is pleasing? Finding moves with paradox and depth naturally does increase your winning chances, as might noticing a geometric pattern. Indeed the feeling of potency as the brain grasps the logic of a fast flowing sequence of moves might also explain the aesthetics of flow from this perspective.

The evolutionary psychologist might also view things in this kind of light since it is clearly possible that a human brain that rewards anything that increases its power with a feeling of aesthetic pleasure and punishes anything that decreases its power with a feeling of fear or anguish might well have evolutionary advantage for its genes over a brain that did not.

This is almost a 'meta-theory', one level above our theory of chess aesthetics. Our theory of chess aesthetics – call it the PDGF theory – attempts to describe what is aesthetic in terms of moves and why, again in terms of moves. Such and such a move is aesthetic because the move exhibits paradox, depth or whatever. The 'will to power' perspective, or the evolutionary perspective might explain why the human mind is such that the PDGF theory applies. The fundamental reality is that aesthetic pleasure is experienced by a human brain with its own particular experiences and emotions as it perceives the chess action on the board.

Different people have very different experiences and knowledge and hence very different levels of aesthetic appreciation. It is not necessarily a linear scescenario, by which I mean that it is not the case that levels of aesthetic appreciation are always higher or lower – sometimes they are just different. Some excellent problemists have become excellent problemists without actually becoming particularly strong chess players. What appeals to them in terms of 'will to power' might be quite different to what appeals to somebody with a long background as a player. Personality could also play a significant role in establishing an individual's personal preferences.

My (JL's) own background is as a player and I can tell you my own personal preference when it comes to chess aesthetics. I probably like studies best (the highest form of art naturally), then series helpmates (cannot tell you why exactly but probably something to do with flow), then helpmates (in my experience very variable, the best ones being truly magnificent), then longer mate problems, then mate in two, and last and definitely least, selfmates (too hard to solve). Generally I like simpler positions with not too many pieces on the board (typically for a player). I am lazy and not attracted to overly difficult positions. My personality is probably such that I enjoy paradox, flow, geometry and depth in that order.

I must admit I have come across a few mates in two that I have found totally exhilarating (some are quoted in this book), but generally they do not excite me that much. There are people who specialize almost exclusively in

mates in two and look at practically nothing else.

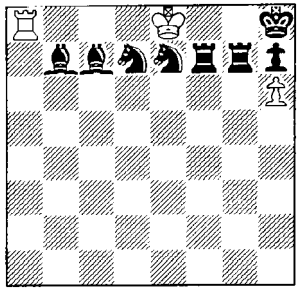
Whatever your preferences, ideally it is best to be open to appreciating positions that are not your typical fare. That way you can expand your aesthetic taste buds and try new 'experiences'. I have found that even amongst the dreaded selfmate, there are some fantastic examples that I have enjoyed immensely. It is just generally that I enjoy them less. (One should try not be 'typist'. Some of my best friends are selfmates...)

Beauty and Difficulty

The relationship between beauty and difficulty is not simple. Does a beautiful piece of chess art (of the problem variety) have to be difficult to solve? Does a beautiful game have to involve highly skilful and difficult moves?

The answer is that it could do, but it is not necessarily the case. In terms of our theory, of the four elements only depth is directly related to difficulty. Almost by definition, if a move is genuinely deep then its point is hidden and hard to see. Paradoxical moves are not always hard to see, especially to an experienced eye, since the human mind often heads right away in the direction of fanciful and unlikely moves. Moves that flow are usually natural and clear (in other words not hard to fathom) and, equally, geometric ideas can be easy to see sometimes:

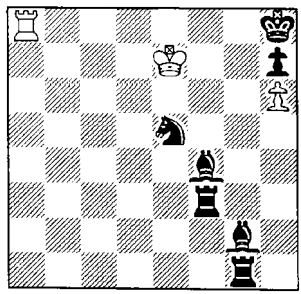
(see following diagram)



10.3 SH=5 G(F)(D)
Two solutions
C.Tylor
The Problemist 2006

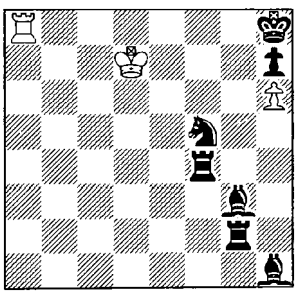
In this problem, a series helpmate in five, Black plays five moves in a row to enable White to mate in one. Clearly White must mate along the eighth rank with his rook, but it seems that Black has a lot of wood to tie up in just five moves. There are two analogous solutions, both involving an intricate nest of interferences:

a) **1 ♖g1 2 ♗g2 3 ♖f3 4 ♗f4 5 ♘e5** and White mates with **♔xe7**.



In the final position, the black rook on g1 is blocked by the bishop on g2 which, in turn, is blocked by the f3-rook, which itself is blocked by the f4-bishop. Finally this f4-bishop is blocked by the knight on e5. White used his one move to remove the knight on e7 and uncover the check from the rook, which cannot be taken, parried or interposed by any remaining black piece because of all the mutual interferences. Both the English language and the human brain struggle to deal with such a complex nest, so the above sentences sound contorted but the idea is actually quite easy to see for an experienced problemist, who would soon be making the moves with glee, willing them to work.

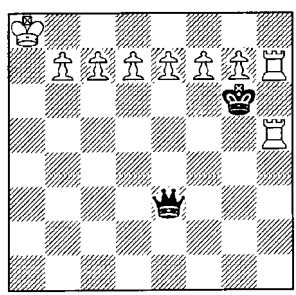
b) **1 ♗h1 2 ♖g2 3 ♗g3 4 ♖f4 5 ♘f5** and White mates with **♔xd7**.



Likewise with the second solution, the eye can see the perfectly matched and nested interferences far better than language can express them. The beauty of this problem lies chiefly in the geometry of the two matched blocking mechanisms. There is also graphic geometry in the easy to remember starting position. Seen as a whole, the problem and its two solutions are both elegant and flowing. There is a little depth in the nested interference concept, but other than the surprise that it can be done at all, practically no paradox in any of the individual moves.

Light or Heavy?

While significant real content, usually accompanied by a degree or two of complexity, is essential for any true masterpiece, there is still plenty of scope for lesser fare. Indeed, elegant, lighter, breezier compositions, with easier content accessible to a wider public, may well have provided more joy to the chess world as a whole than some of their weightier companions. Take the following two examples which share several aesthetic elements, especially an easy flow and striking geometry. Both positions are easy on the brain, relatively simple to grasp and are presented in a light and attractive setting:



10.4 S#7 GF(P)
E.Hasselkus
Schach-Express 1948

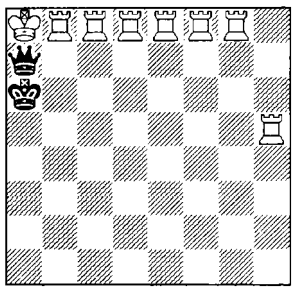
In the first, White must compel Black to mate White after seven moves.

1 g8♖+

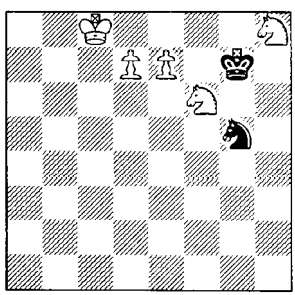
Not 1 g8♕+ because of an unwanted mate on the next move.

1...♔f6 2 f8♖+ ♔e6 3 e8♖+ ♔d6 4 d8♖+ ♔c6 5 c8♖+ ♔b6 6 b8♖+ ♔a6 7 ♖a7+ ♕xa7#

The final position deserves a diagram by virtue of being so bizarre:



The next composition is by one of the great pioneers of chess problem art:



10.5 Mate in 3 G

Sam Loyd

Boston Globe 1876

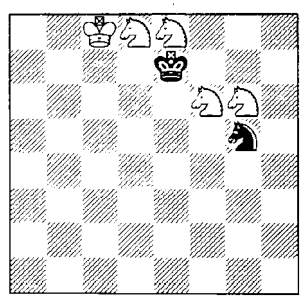
This time the knights hold sway:

1 e8♘+ ♔f8

Another attractive knight mate is seen after 1...♔xh8 2 d8♘ ♘e4 (the same mate occurs after all knight moves; note too that the king cannot move therefore the knight must) 3 ♘f7#. Similarly 1...♔h6 2 d8♘ ♘e4 (as in the previous line the knight must move releasing control of the vital square) 3 ♘df7#.

2 d8♘ ♔e4 3 ♘g6#

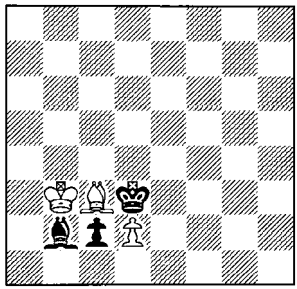
Again it does not matter where the knight moves. Alternatively 2...♔e7 3 ♘g6# led to perhaps the nicest mate of them all:



Many people seeing these positions for the first time experience a sense of 'chess humour' as they see the solutions unfold. Humour is often associated with a sudden change of perception (you see something one way and a succinct punch line suddenly makes you see it another way). As the somewhat famous Spoonerism goes, humour is a sudden 'shift of wit'. In the selfmate above at first one is thinking

'maybe we can make a rook' but then, as the point of the position becomes clear you realize that you are making nothing but rooks – a full half dozen in fact. The second position is something of a knight fest.

A feel for the 'aesthetic value' of chess composition has a lot to do with the balance between content (chessboard drama in terms of depth, paradox, geometry and flow) and material (number of pieces on the board in the initial position). This is of course a way of looking at the question of economy.

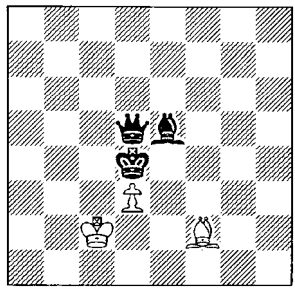


10.6 H#5 G(F)(P)
W.Anderson
The Problemist 2006

In this helpmate Black plays first and co-operates with White so as to enable White's fifth move to be mate.
1 c1♕ ♗f6 2 ♗e5 ♗h4 3 ♙d4 d3 4 ♕h1 ♔c2 5 ♕d5 ♗f2#

(see following diagram)

The Problemist is the publication associated with the British Chess Problem Society and readers can submit their own problems for publication as 'originals'. When and if published, other readers can comment on what they think of the problem. For example this position elicited the following comments from different readers:



'Fine intro to this clever piece: mixed coloured Bristol manoeuvre and unexpected promotion to Q.'

'An aesthetic piece of engineering.'

'Clever midboard mate. An enjoyable problem.'

'Lovely little position with equal forces. W1-B2 magnet play and unexpected double use of the h-file.'

'A beautiful miniature.'

The 'magnet play' refers to 2 ♗f6 ♗e5 – it is as if the second bishop is magnetically attracted to the first and follows it. The problem has sufficient play and content to be interesting but what makes it really stand out and get such appreciation is the elegant starting position (a little two by three rectangle with king, bishop and pawn for both sides). If the board had been full of pieces and only

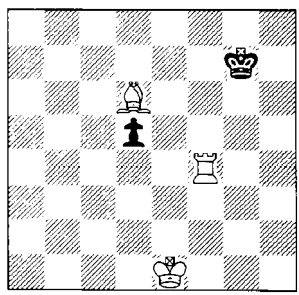
achieved the same content, the problem would not be considered anything special at all, but as it is it has a lot of charm. The people making the comments above are all problem aficionados with a very refined sense of what can be expected from a position for the given content. This problem by Anderson elicited a positive response because typically helpmate compositions with such a light setting would not exhibit as much interesting play (problemists are fortunate in that there are many wonderful exceptions to this generalization).

When you go over the solution to a helpmate it is always interesting to see why the move order is constrained so that the solution is unique. Here, in reaching the target position (the final mate) in only five moves each, the black bishop must move before the black king does (otherwise the king would get in the way of the bishop). Only after the black king moves can the white pawn move. The white king can only go to c2 after the black queen moves away, allowing it access to the square and so on. You can see why it was called 'aesthetic engineering'.

Over-the-board players are particularly hostile to and suspicious of problems with 'a board full of pieces'. There is almost a need or an obligation for wonderful and spectacular content in the play to justify the affront of presenting such a heavy looking and unpleasant starting position to them. Otherwise the reaction might be: 'Why on earth should I look at that and trouble my mind with getting to grips with all those pieces? Life is too short!' Fortunately the best chess problems often deliver proportionally more content if they have heavy starting positions and are thus well worth the effort. For example, Markus Ott's series helpstalemate in the chapter on flow has a heavy looking starting position, but what amazing and delightful content it delivers during the 153 move solution!

Help from the Other Side

Helpmates are a world to themselves – the co-operation between White and Black making them quite different in kind to many other problems. Within that world however there is not only great variety, but also great scope for creating artistic content. The following selection gives you a good taster for the possibilities:



10.7 H#3.5 G(D)
2 Solutions
Rolf Wiehagen
3rd Prize, Schach 1995

This is a simple, elegant problem which packs some geometrical punch

within a very light frame. Remember that in a helpmate Black normally goes first but here it is helpmate in 3.5, which means White goes first, both sides co-operate and White's fourth move mates Black. The two solutions are perfectly matched:

a) **1 ♖a4 ♔f6 2 ♗b4 ♔e5 3 ♔d2 ♘d4 4 ♗d6#**

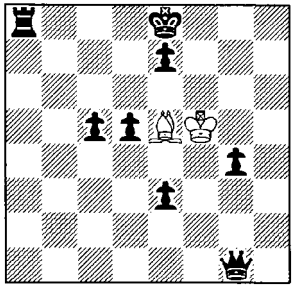
b) **1 ♖f1 ♔g6 2 ♔f2 ♔f5 3 ♘e2+ ♔e4 4 ♖f4#**

Both solutions feature the Indian theme (in the first with rook and bishop with the critical square being b4, and in the second with rook and king and the critical square being f2), but there are also ideal mates and switchbacks.

The next problem by the always brilliant Fadil Abdurahmanović has quite different aesthetic virtues, although again the chief component is geometry. It is a heavier construction than the last problem but one that achieves proportionately more, in this case two surprising round trips by the white pieces. The Black moves are constrained by the need to get the pieces into their final positions in time, while White needs to employ tempo losing moves to achieve the goal of being in the right position at the right time. The move order is cleverly forced by the interplay between both sides.

(see following diagram)

Here it is helpmate in 6.5, which means White goes first, both sides co-operate and White's seventh move mates Black.

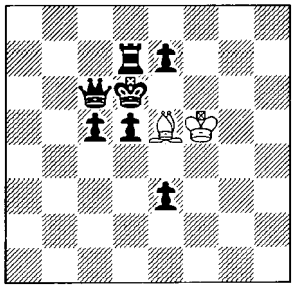


10.8 H#6.5 G(P)(D)
F.Abdurahmanović
3rd Prize, Feenschach 1997

1 ♗g3 0-0-0 2 ♔xg4 ♖d7 3 ♔f4 ♔c7 4 ♗e1

White has two ways with this bishop to reach its final destination in three moves, but 4 ♗h4? would fail because it would later (on f6) obstruct Black's queen on its path to c6.

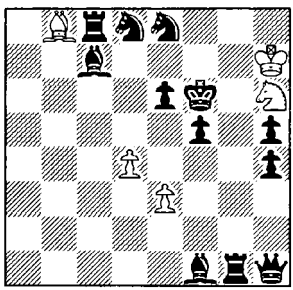
4...♕g6 5 ♗c3 ♕c6 6 ♔f5 ♔d6 7 ♗e5#



Both the king and bishop have ended back where they started, having completed roundtrips. This represents

the achievement of a geometrical task, and the whole problem has been designed with this in mind. In this case the engineering is very elegant, with only the pawn on e3 as 'waste' in the final position.

The next helpmate also achieves a geometrical task, but this time more wood on the board is required to accomplish it. The task however is all the more spectacular and, as the reader can appreciate, there is always a trade-off between what is achieved and the 'weight' of material needed to achieve it.



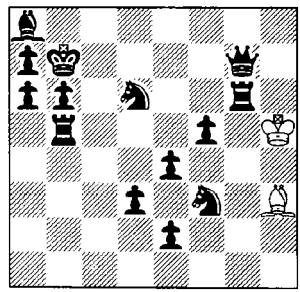
10.9 H#2 G(F)
Four solutions
M.Mladenovic
Mežica TT 1982, 1st Prize

The four solutions all involve the 'Loshinsky magnet' theme, where one piece follows another as if magnetically drawn to it:

a) **1 ♗h2 ♗g3 2 ♗g2 ♗xh4#**
b) **1 ♗g3 ♗f4 2 ♘f7 ♘g8#**
c) **1 ♗f4 ♗e5+ 2 ♔g5 exf4#**
d) **1 ♗e5 ♗d6 2 ♖g5 dxe5#**

Somehow problems with the Loshinsky magnet theme always seem very attractive since it is an inherently striking geometric effect. In this problem the extra material (needed to constrain the solutions to just those that are intended) is neatly arranged, mostly around the edge of the board and the pieces almost form an arrow on the board. The solutions exhibit no significant depth or paradox but if you consider the four solutions as a whole it is possible to feel there is flow involved.

The next problem – a real masterpiece which was a joint effort by two great composers – has about the same amount of material but achieves an entirely different geometric effect:



10.10 H#5 GPFD
V.Korolkov and L.Loshinsky
1st Prize, 3524 problem XI 1973

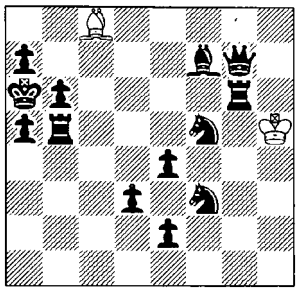
This time there is only one solution.
1 a5 ♗g4 2 ♔a6 ♗xf5 3 ♗d5
Blocking the line of the black rook on b5, allowing the white bishop to

continue on its slow and majestic promenade along the h3-c8 diagonal.

3...♗e6 4 ♘f5

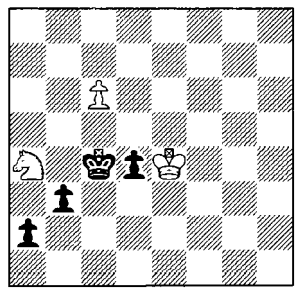
Again blocking the rook so that the black bishop which was performing the task is freed next move.

4...♗d7 5 ♗f7 ♗c8#



Why fly when you can crawl? The bishop has traversed the h3-c8 diagonal just one square at a time and it is interesting to look back over the solution to figure out why it was necessary. There is much interaction between the two sides as they set about mutually achieving the final position. Black needs all five moves to get the pieces from their starting squares to their destination squares, but White needs to engage in sophisticated tempo play. If the white bishop took on f5 on its first move, White would be stalemated next move. After that the bishop must restrain itself from reaching c8 too soon since it needs to arrive there with mate. 4 ♗e6 is played as opposed to 4 ♗d7 since if it went to d7 it would have to come back to e6 next move which would get in the way of Black's bishop move from d5 to f7 (itself necessary to block the action of the black queen, so that it cannot go to b7 in the final position, negating the mate).

One can imagine that Loshinsky and Korolkov would have worked hard to engineer this problem so that it works. The next problem strikes me as something quite different – perhaps it is a 'lucky find' by the composer, a gem he unearthed while exploring some possibilities. At any rate there is not much evidence of 'engineering' in the composition. In terms of the balance between material and what is achieved I (JL) find the following problem most impressive:



10.11 H#3 G(P)(D)
Four solutions
A.M.Karpati
1st Prize, BTSB 1956

The four solutions are:

a) **1 a1♘ c7 2 ♘c2 c8♘ 3 ♘b4 ♘d6#**

b) **1 a1♗ c7 2 ♗c3 c8♗ 3 ♗b4 ♗a6#**

c) **1 a1♖ ♘c3 2 ♖a4 c7 3 ♖b4 c8♖#**

A tiny flaw in this incredible problem is that queening is also possible.

but under such circumstances it is conventional to allow the composer to choose which move he wants to give as his solution.

d) **1 a1♕ c7 2 ♕a3 3 c8♕+ 3 ♕c5 ♕xc5#**

As Chris Feather puts it in *Black to Play* (his splendid book in German and English specifically on helpmates) 'Almost a Babson task in miniature without twinning!' The word almost is inserted because in line 'c' underpromotion to a rook was only optional.

Twinning is when you change the start position by moving a piece from one square to another to show an alternative solution. *Miniature* is a precise term for a problem with seven or less pieces in the start position. The famous *Babson task* involved trying to achieve in a chess problem the four possible promotions of a black pawn being matched by the corresponding promotions of a white pawn. Joseph Babson published a selfmate in 1914 which demonstrated the promotions (using three different pawns for the White promotions). It was achieved with a single pawn by H.Bettmann in 1926, again using a selfmate. The challenge to create a direct mate problem with the Babson theme remained open for half a century, and many thought it was impossible until L.Yarosh demonstrated it could be done in 1983.

It would be too much of a detour to present the full history of the task and the problem that finally cracked it, but I refer you to Tim Krabbé's website (www.xs4all.nl/~timkr/babson/babsons.htm) if any reader wants to know more.

Returning to the Karpati helpmate, I find it little short of miraculous that such a position with just seven pieces exists (let alone that the composer managed to discover it). To be more precise, what is so surprising is that there is a position in which there are four (and only four – the miracle is that the problem is sound) solutions demonstrating the complete set of matched promotions by White and Black.

The task is essentially a geometrical one. In the geometry chapter we discussed the 'extended meaning of chess geometry' which refers to more abstract, conceptual patterns. Thus the aesthetic appeal of the last problem is chiefly in terms of geometry, though there is usually a touch of paradox and depth involved in underpromotion. In this case the motivations for the various promotions are easy enough to fathom:

The white knight promotion is because the powers of a knight are needed, while the black knight promotion is because blocking the b4-square with queen or bishop would control d6 from where the white knight gives mate.

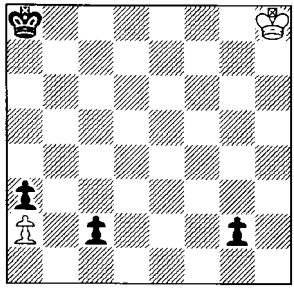
The white bishop promotion is because a queen would be too powerful and upset the solution by giving check, while the black bishop promotion is because in the final mate a queen on b4 could block on b5 and a knight on b4 could capture the mating bishop on a6.

The white rook promotion involved

the flaw – a queen was also possible. The composer was entitled to choose a rook promotion and he obviously did so to achieve the full, matched set of under promotions. Black needs to make a rook since a queen would be too powerful and would be able to interpose in the final position, destroying the mate.

The full power of the queen is needed by both White and Black in the final solution. Given that certain squares are blocked, only a black queen can get from a1 to c5 in two moves while only a white queen is sufficient to give mate by arriving on c5 and controlling b4 as well. One final constructional point: you might wonder what the black pawn does on d4? This answer is it prevents various cooks (unwanted alternative solutions), for example when White queens and captures on c5 you would not want Black making a bishop and going via d4 to c5, or making a queen and going via g1 to c5.

Possibly just as striking (and easy to remember if you want something to show your colleagues at the local club) is the final helpmate in our selection, which achieves an Allumwandlung (complete set of promotions) in the most elegant form possible for a single line helpmate. Clearly if four pawns are going to promote to four different pieces in a single line of play, then the start position will need at least four pawns! Here the composer manages to achieve everything with the minimal weight and the maximum style:



10.12 H#7 GFPD
Rolf Trautner (after Gyula Bebesi)
Die Schwalbe 1960

1 c1♘

If Black is going to be mated by White's seventh move there is no time to lose in assisting the promotion march of the white pawn on a2. Knighting is the quickest way to get a unit to b3 to allow the pawn to progress.

1....♔g8!

A subtle waiting move, exhibiting real depth. The point will be revealed at the end.

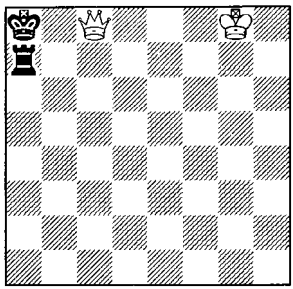
2 ♘b3 axb3 3 g1♗.

Black wants to get a piece taken on the c5-square, which again assists the white pawn to progress towards the mating position at the end. This time queening is not possible since the unwanted check to the white king (now on g8 for reasons about to be seen) would force another king move, wasting time and preventing a solution in seven moves.

3...b4 4 ♗c5! bxc5 5 a2 c6 6 a1♖

The motivation for this underpromotion is that in the mating position below, a queen (although it could get to a7 in just one move as required) would be able to block on b8, which the rook cannot.

6...c7 7 ♖a7 c8♕#

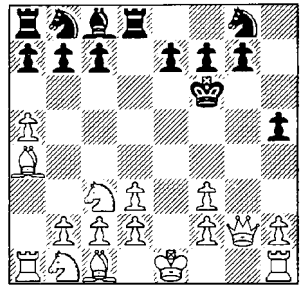


The full force of the queen is needed for the mate. Notice now that had the white king moved anywhere else on the first White move, the c7-pawn would be pinned by the rook and unable to promote.

All the elements present themselves in this exceptionally neat problem. The extended geometry of the Allumwandlung pattern, the depth (and precision) of 2 ♔g8, the flow of the white pawn up the board and the paradox involved in the motivations for the various underpromotions.

Even Weirder, even more Wonderful...

For some decades now, composers have been exploring the possibilities within the genre of 'proof games'. You are presented with a position and told you have to find how the game went to reach that position. Often this proves not only a worthy test of your Sherlock Holmes style deductive powers, but also (at least with the better compositions) a voyage of surprise and discovery...



10.13 White to play DGP
Position after Black's 16th move
How did the game go?
Michel Caillaud
1st Prize, Messigny 1995

Usually it is a good idea at first to take stock of the situation and establish some simple things that you can be sure of. We know both sides have precisely sixteen moves to reach this position.

What has White achieved in these sixteen moves? He has:

1) Captured exd3 and gxf3. Two moves.

2) Spent at least two moves (♘g1-e2 and ♘e2-c3) getting his knights to their current position.

3) Spent at least two moves getting his a-pawn to a5.

4) Spent at least three moves getting his bishop to a4 (It cannot have gone ♗f1-b5-a4 since the way was never clear for moving the bishop to b5. Look at that pawn on d3!)

5) Spent at least two moves getting his queen to g2.

6) Spent some moves removing the black bishop that was on f8. Note the bishop could never have moved (black pawns still on e7 and g7), so White must have taken it on f8. Could this have been done by a knight? No – it would take too long and there would not have been enough time in sixteen moves to reach the current position. Therefore it was done by the white queen. This seems to involve a lot of moves... can it be done in time?

Let us also consider what Black has achieved in these sixteen moves:

1) The d-pawn has been taken on d3 and the queen on f3. Probably five moves in all, three with the d-pawn and two with the queen (via d5).

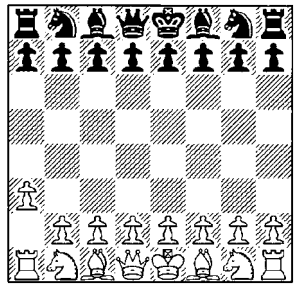
2) The king has reached f6. Another three moves.

3) The rook has reached d8. At least three moves again, since either it went via h6 and d6 or the knight on g8 moved out the way and back again (two moves) and the rook went directly (one more). The h-pawn has advanced. So at least four moves are needed to accomplish the rook on d8 and the pawn on h5.

There seem to be four Black moves unaccounted for; however, these may well be required to facilitate White achieving what he needs to achieve, in particular helping White remove the bishop on f8.

You might enjoy playing around with a chess set, starting from the opening position for a game of chess and seeing if you can reach the above diagram in just sixteen moves each. Alternatively, just relax and enjoy the solution:

1 a3!!



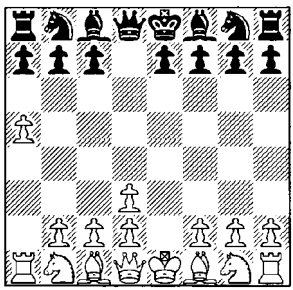
Many congratulations if you managed to find this shocking first move! The two exclamation marks are not as a result of having just had Mike Basman round for dinner, but because this very surprising waiting move is the only way to reach Diagram 10.13 after sixteen moves. There is plenty of paradox in losing a move when there seems so much to do in the 16 moves, but you will see before move four why the waiting move was necessary. An unusual but clear example of depth.

1...d5 2 a4 d4 3 a5 d3

It is only after Black has played his third move that White can truly set about his business without a moment to lose. If White had played his a-pawn

to a5 in two moves the question is what could he usefully have done with his third move? The answer is, surprisingly, nothing. There would have been no move available which helped set up the final position. On the contrary, any move played would have to be 'undone' (for example ♖a1-a2 would need undoing by a later ♖a2-a1), wasting a critical tempo and preventing the accomplishment of the final position in the requisite sixteen moves.

4 exd3



The star of the show is about to step on stage.

4...♗h3!

But why move here?

5 ♘e2 ♗d7 6 ♘ec3 ♗e6

Now the back king is nearly in place the white queen can start her work without causing Black further problems. In this problem there is a great deal of mutual consideration needed by both sides for the other sides' objectives. As with helpmates, both sides must co-operate to achieve the desired result. These must be the problem genres of choice for marriage guidance councillors!

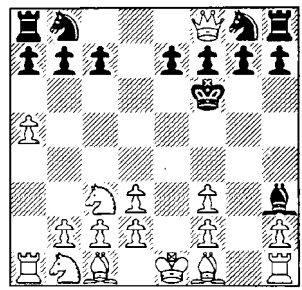
7 ♕g4+

This is why the black bishop went to h3... to be the other side of the critical g4-square so that the white queen could operate without obstruction from (or having to take) the black bishop.

7...♗f6 8 ♕c8 ♕d5 9 ♕xf8

Objective accomplished, but now the queen has to get back.

9...♕f3 10 gxf3

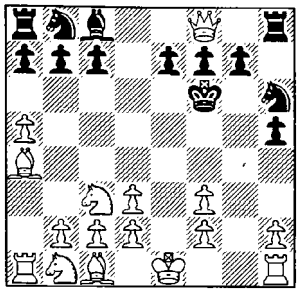


10...♗c8!

You might have thought that the white queen would return to g2 via c8 and g4 before the bishop on h3 moves. However the bigger priority is getting the white bishop on f1 to its destination square of a4 as soon as possible, so that White does not have to lose any time. The white bishop needs to go via h3 and d7 and so the queen must delay her return since if she moved even as far as c8 she would get in the way of the black bishop, which must in turn get out of the way of the white bishop! Naturally the bishop on h3 ends up on the board on c8 (where it started) and thus it cannot be taken during the

game.

11 ♗h3 h5 12 ♗d7 ♘h6 13 ♗a4



13...♗h3!

Back again! This time it is to clear a path for the returning white queen.

14 ♕c8 ♖d8 15 ♕g4 ♘g8

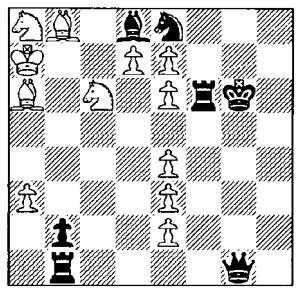
The black knight performs a switchback. A minor role compared to the pendulum performing black bishop.

16 ♕g2 ♗c8!

Fittingly the final move is played by the heroic bishop which has made three consecutive clearances. First clearing the way for the white queen to go via g4 by playing to h3. Next back again to c8 to clear the way for the white bishop on f1 to go to d7 via h3. Then back again to h3 to clear the way for the white queen to return via c8 and g4. Looking at the final position, which is the position you are given when presented with the problem, it is hard to imagine that the only possible game to reach that position in sixteen moves includes not only a waiting move with White's a-pawn but also an astonishing double switchback by the bishop between c8 and h3.

Was this 'merely' an ingenious puzzle or was it a work of art? Does a work of art have to be accessible to a wide public? How many people have the necessary logic (and patience) to grasp such a composition? Readers can make their own minds up.

The following magnificent problem composed by G.P.Sphicas is not at all easy to solve or grasp by virtue of its complexity and grand construction:



10.14 SS=37 FGDP

G.P.Sphicas, 3rd Prize

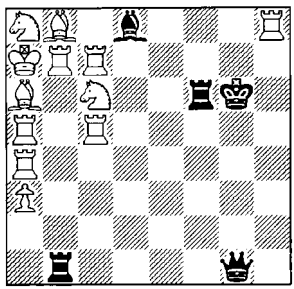
The Problemist 1991

This is a series selfstalemate, in which you have to find 37 consecutive White moves so as to reach a position where Black is forced to stalemate White. Without seeing where you are going, in other words knowing the target end position, it is almost impossible to find the solution. The first thing to realize is that after a series of White moves and only one Black move, either all or all but one of the white pieces

will be on the board in the final position. So for White to be stalemated, all these pieces must somehow be immobilized.

The solution runs as follows

1 dxe8♖ 2 ♖h8 3 e8♖ 4 ♖e7 5 ♖c7 6 e7 7 e8♖ 8 ♖e5 9 ♖a5 10 e5 11 e6 12 e7 13 e8♖ 14 ♖ee5 15 ♖ec5 16 e4 17 e5 18 e6 19 e7 20 e8♖ 21 ♖e4 22 ♖ea4 23 e4 24 e5 25 e6 26 e7 27 e8♖ 28 ♖e2 29 ♖xb2 30 ♖bb7



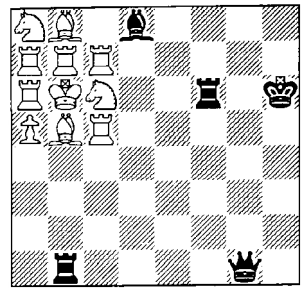
Now we are ready for the final phase as the white king moves into position.

31 ♗b5 32 ♔b6 33 ♖aa7 34 ♖4a6 35 a4 36 a5 37 ♖h6+

And Black plays **♔xh6** leaving the following spectacular stalemate:

(see following diagram)

Let us take another look at the solution now that we know what we are aiming for. It is interesting to understand why each move is precise and why the moves cannot be played in any order other than the order demonstrated by the unique solution.



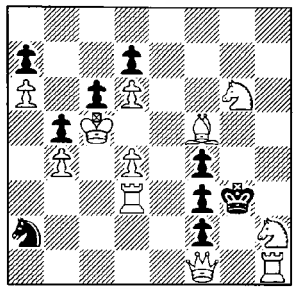
White's first two moves and the 37th move are about losing the one unit that Black is able to capture. Promotions other than to a knight would fail because they would check the black king, whereas making a knight would fail because in the final position the knight cannot be captured by the black king on either g7 or h5 because of the presence of the pinned white rooks. After making a rook, the rook must move to enable further progress and the only move to enable the finish is 2 ♖h8.

After this each rook slots into place in the minimum number of moves before getting in the way of the next advancing e-pawn. If you look at the diagram after White's 30th move you will see that the bishop must move first to block the line of the black rook on b1, allowing the king access to b6. After the king moves, the white rooks on the a-file can take up their positions then finally the pawn moves up to complete the cage. In the final position White has six pieces immobilized by being locked up with no breathing space and four units on the outside of the cage that are pinned in place.

It is a magnificent construction and there is something astonishing about the sheer number of moves for which precision and uniqueness of move-order is maintained. This flow is perhaps the chief aesthetic component, though of course there is great depth in the whole construction (the point of each move really becoming clear only at the end) as well as some paradox in the need for all these rook promotions. There is extended geometry in the pattern of under promotions and graphic geometry in the final position.

Notice also that there are six rook promotions on the same square! This is a record task achievement according to Sir Jeremy Morse's fabulous *Chess Problems: Tasks and Records* (Faber and Faber, 1995). The position appears in chapter fourteen which exhibits several block-buster constructions of this type, any one of which could be well used as evidence of human ingenuity and intelligence were it to be shown to a superior alien life-force that knew the rules of chess!

We will finish off with a couple of selfmates. If helpmates and proof games are a model of how people should use co-operation to achieve their objectives, selfmates have an element of perversity and self destruction about them, which some people find attractive. White in fact needs to exercise great control over Black to bring about his own (White's) destruction. It is a complex and sophisticated power game. In looking at or solving a selfmate you need to remember that White compels Black to mate White, against his will. That is, Black tries to avoid mating the suicidal White.



10.15 S#6 PG
M.Vukčević, 1st Prize
Mat Plus 1996

1 ♗e4

This move sets Black up. How White mates himself now depends on where Black moves his knight.

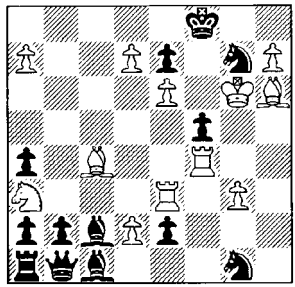
1...♘c1

The alternative, perfectly matched line is 1...♘c3 2 ♕g2+! ♔xg2 3 ♗xf3+ ♔g3 4 ♗e4+ f3 5 ♖xf3+ ♔g2 6 ♖d3+ ♘xe4 mate. If 1...♘xb4, White continues as in the main line.

2 ♕h3+! ♔xh3 3 ♖xf3+ ♔g2 4 ♖d3+ f3 5 ♗xf3+ ♔g3 6 ♗d5+ ♘xd3#

A marvellous feat of constructional elegance by the late lamented over-the-board GM. This shows battery creation and transformation – favourite themes in longer selfmates – with switchbacks. The orthogonal to diagonal transformation between the two variations is also something the classier composers like to show. The queen sacs are paradoxi-

cal, but in a different sense because it is a selfmate. Here they are surprising because of the loss of control. But the cherry on the top is the way White's last move's destination square has to be precisely chosen. A very neat problem, but it seems almost lightweight compared to the following blockbuster:



10.16 S#21 DPGF
Hartmut Laue, 1st Prize
Feenschach 1994, version 1996

1 ♖ef3

Threatens 2 ♖xf5+ ♗xf5+ 3 ♖xf5+ ♕xf5 mate. Thus Black has to move the c2-bishop so that it no longer controls the f5-square.

1...♗d1 2 ♖b3

By unguarding f5 White now threatens 3 ♖xf5+ ♕xf5#, so Black has to bring the bishop back to c2. This switching of threats to gain a tempo for a reorganization of forces occurs a record number of times.

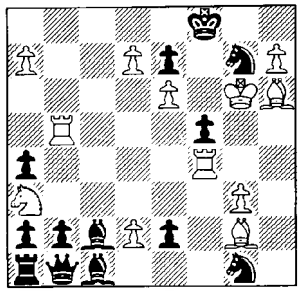
2...♗c2

Black has to 'interfere' with the queen somehow, but having to use a bishop has its disadvantages.

3 ♖b5 ♗d14 ♗d5

Threatening 5 ♖xf5+.

4...♗c2 5 ♗g2!!



Why precisely this destination square?

5...♗d1 6 ♖xa4

Why has White arranged for this capture?

6...♗c2 7 ♖aa5 ♗d1 8 ♖b4 ♗c2 9 ♖f4 ♗d1

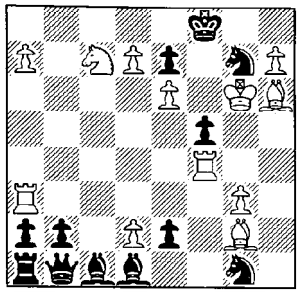
The black bishop haplessly goes back and forth in response to White's manipulations.

10 ♘b5!

Threatening 10 ♖xf5+, but why is this trip of the knight needed? Many questions... As is the nature of depth in chess, the answers come later.

10...♗c2 11 ♘c7 ♗d1 12 ♖a3

The capture of the a-pawn and the removal of the knight to c7 has permitted the opening up of this 'pericritical' path for the rook! And why did the rook need this pericritical path in the first place? Because it had to get itself offside to facilitate the white bishop's manoeuvre and now has to get itself onside again!



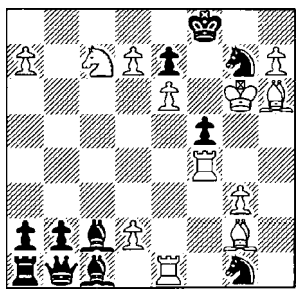
12...♗c2 13 ♖af3 ♗d1 14 ♖e3 ♗c2

One gets the impression White is toying with Black, but why?

15 ♖e5 ♗d1 16 ♖xe2

Why does this pawn need capturing?

16...♗c2 17 ♖e1



Now we begin to discern the edifice that White has been building: this waiting move is a declaration of zugzwang!

17...♘e2

17...♘f3 (or ...♘h3) 18 ♖xf5+ ♗xf5 is mate because the knight now guards g5 and so White does not have to force the queen to mate. The same applies after 17...♗xd2 since the bishop would then guard g5. With a genuine masterpiece there is often the appearance that many fortuitous factors just happen to 'accidentally' fall into place.

18 ♖xe2 ♗d3

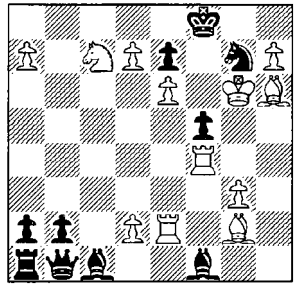
If 18...♗e4, 19 a8♕+ ♗xa8 20 ♖xf5+. Notice the cleverness of the construction – the use of the a-pawn is not only for this variation, but also to prevent a dual knight move on White's eleventh.

19 ♖e5 ♗f1

19...♗b5 (or a6) is met by 20 ♖c4 and then 21 ♖xf5+ ♕xf5 mate.

20 ♖e2

Only now the journey of the white bishop ending in 5 ♗g2 is seen: Black does not possess the means to doubly protect his f-pawn with 20...♗h3!



20...Any 21 ♖xf5+ ♕xf5#

Truly a symphony on the theme of Depth! It is not so much the length of the deep moves, as the way each part of the whole complex, multi-layered manoeuvre is a little odyssey on its own.

Well dear reader, if we are all still around in 2020 then maybe we can look forward to being reunited for the third edition...

Solutions to Exercises

Games

Ex. 6.7:

After **30 ♘e4!!** Black resigned. (30...♖xc1 31 ♘g5 mate). Had there been a black pawn on e4, I suspect my opponent would not have missed it. As in the Kasparov-Short example, a 'sacrifice' on an empty square!

Ex. 6.8:

White forces mate by:

1 ♕h6+!! ♔xh6

After 1...♔h8 White mates with 2 ♕xh7+! ♔xh7 3 hxg6+ ♔g7 4 ♖h7#.

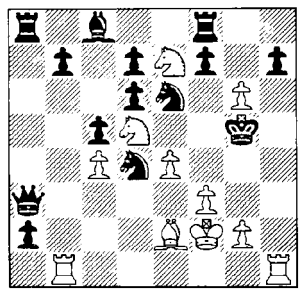
2 hxg6+ ♔g5

2...♔g7 3 ♖xh7 mate.

(see following diagram)

3 ♖h5+!!.

Sacrifices on empty squares which give check to the opposing king are not quite so paradoxical, but giving away as much material as in this example is pretty unusual.



3...♔xh5 4 f4+ ♘xe2

Others are no better.

5 ♘f6+! ♔h6 6 ♖h1+ ♔g7 7 ♘e8+ ♖xe8 8 ♖xh7+ ♔f6 9 ♖xf7#

A twentieth century answer to the Evergreen game, involving extreme paradox of material, with three sacrifices on empty squares.

Ex. 6.9:

1 f6!! ♖xe2 (if 1...gxf6, 2 g7 ♖g2 3 ♗g5!! ♖xg5 4 ♕xg5 ♕xe2 5 ♕g1 wins) **2 fxg7**

♖xd2 3 ♗xd2 ♕e2 4 ♔c1 1-0.

Tal supported his eye for brilliancy with deadly accurate analysis. It is not enough just to see the idea; you must also see precisely why it works.

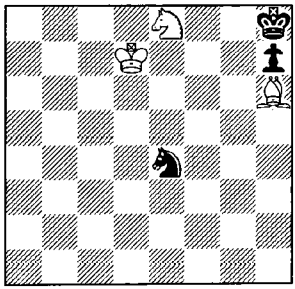
Studies

Ex. 7.32:

This position is from a study by Gorgiev (1938). We have, as in the next example, removed the introductory play since it was, in fact, unsound. What is left is the climax of the study only, which should make it a bit easier for solvers.

1 ♔d7!!

But not too easy. To find this deep move, and to avoid the more obvious 1 ♔e7?, one has to appreciate that after 1 ♔e7 ♔g8 the position is a mutual zugzwang.



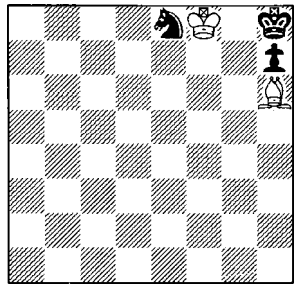
1...♘f6+!

Black tries a stalemate defence. After 1...♔g8 2 ♔e7 ♘c5 3 ♘f6+ ♔h8 4 ♔f7 ♘e6 5 ♘g4 ♘d8+ 6 ♔e7 ♘c6+ 7 ♔f8 Black will be mated.

2 ♔e7!

Not 2 ♘xf6? stalemate. Now play divides into two unified variations. Firstly 2...♘g8+ 3 ♔f8! ♘xh6 4 ♘d6 with another mutual zugzwang. Secondly, our main line.

2...♘xe8 3 ♔f8!



With yet another mutual zugzwang. Subtle play with optical logic and paradoxical twists thrown in.

Ex. 7.33:

From a study by J.de Villeneuve-Esclapon. White, a rook down, must attack the black pieces:

1 ♔g5 ♖h2!

If 1...♖b6, then 2 ♗e5 with 3 ♗d4 to follow a black knight move.

2 ♗e5

Attacking rook and knight.

2...♖f2

Defending rook and knight!

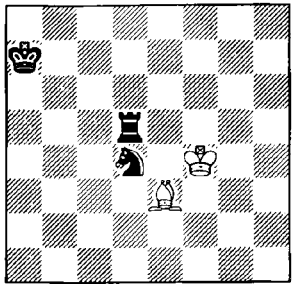
3 ♗f4

Attacking the knight and preparing 4 ♗e3+ should the knight go anywhere other than d4.

3...♘d4 4 ♗e3

Black now defends his two pieces in the only way possible:

4...♖f5+ 5 ♔g4 ♖d5 6 ♔f4



Threatening 7 ♔e4. Black rushes his king to the defence.

6...♔b6 7 ♔e4 ♔c5

It seems Black has secured his winning material advantage. However, the turbulent flow comes to an abrupt paradoxical finish:

8 ♔d3!

With a positional draw – we have reached Diagram 7.8.

Ex. 7.34:

A study by L.Kubbel. Accurate play is needed to force a win, but the real point is the geometric effect of having the black king mated on both sides of the board!

1 ♘f8+ ♗e8

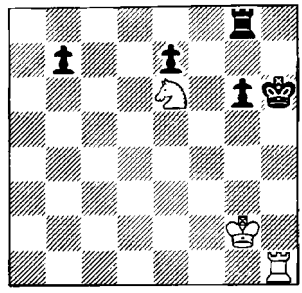
If 1...♔c8 then 2 ♖c1+ ♔b8 (alternatively, if 2...♔d8 then 3 ♘e6+) 3 ♘d7+ and White delivers mate on the a-file.

2 ♘e6! ♖g8

If 2...♖h7, 3 ♖d8+ ♔f7 4 ♘g5+ wins.

3 ♘c7+ ♗f7 4 ♖f1+ ♔g7 5 ♘e6+ ♔h6 6 ♖h1#

This time White mates on the h-file. This study makes a good talent test for your ability to analyse at chess.



Ex. 7.35:

In some ways the easiest to solve, but did you see all three thematically linked variations?:

1 d7 ♖h8 2 ♗g8!.

1 d7 ♖d1 2 ♗d5!.

1 d7 ♖a1+ 2 ♗a2!

All avenues of approach for the rook are negated by a time-gaining bishop sacrifice. A neat study by Prokes.

Ex. 7.36:

A study by Mitrofanov. Paradoxically White must block his own pawn:

1 ♔e6!

Threatening 2 ♔d5. The alternative 1 ♔e4? would not save the game after 1...c6!.

1...c5

After 1...♔d2, 2 ♔d5 ♔d3 3 ♔c6 ♗d8 4 e6 draws.

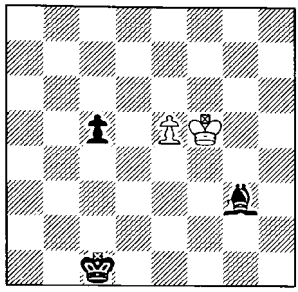
2 ♔d5 ♗e7

It looks hopeless for White, but now there is a surprising circular chase:

3 ♔e6 ♗f8 4 ♔f7 ♗h6 5 ♔g6 ♗f4

5...♗f8 6 ♔f7 just repeats.

6 ♔f5 ♗g3



So as to meet 7 e6? with 7...♗h4. If 6...♗xe5, 7 ♔xe5 picks off the last pawn.

7 ♔e4! ♗h4 8 ♔d5 ♗e7 9 ♔e6

'Perpetual motion'! Consider yourself a top-class solver if you managed this one.

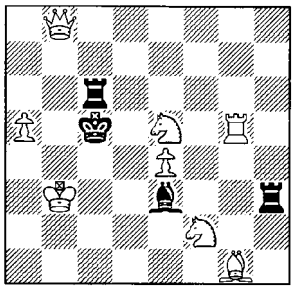
Ex. 7.37:

1 ♘g4+ ♔e7 (1...♔g6 2 ♘e5+ ♔f6 3 ♘g4+) **2 ♘f5+ ♔d7 3 ♘e5+ ♔c8 4 ♘e7+ ♔b8 5 ♘d7+ ♔a7 6 ♘c8+ ♔a6 7 ♘b8+ ♔b5 8 ♘a7+ ♔b4 9 ♘a6+ ♔c3 10 ♘b5+ ♔d3 11 ♘b4+ ♔e2 12 ♘c3+ ♔f2** (12...♔e1? 13 ♘d3#) **13 ♘d3+ ♔g3 14 ♘e4+ ♔g4 15 ♘e5+ ♔f5 16 ♘g3+ ♔f6 17 ♘g4+**.

Superb smooth flow. The small white army holds the draw with a repetition on the grand scale. This position is also given in Lasker's *Manual*, where Lasker describes it as 'highly humorous'. If you trace out the path of the black king, you will find it forms a chessboard approximation to an ellipse. The theme of this study was first achieved over seven hundred years ago – an Arabic position, with a similarly grand perpetual, appears in the 'Alfonso' manuscript of 1283.

Orthodox Problems

Ex. 8.24:
With **1 ♔b3!!**,

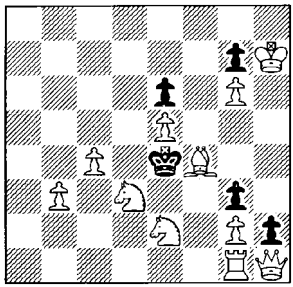


White walks into a veritable battery of checks. The threat is 2 ♕b4#. If the bishop discovers check randomly, for example **1...♗xg5+**, the 'crosscheck' by **2 ♘fd3#** is possible. Black's bishop can put paid to this possibility with **1...♗xf2+**, but this loses control of the white rook, allowing the charming **2 ♘f3#**, guarding d4. Black can correct this error with **1...♗d4+**, but this is a self-block, allowing the double-check **2 ♘ed3#**. A simple capture crosscheck occurs after **1...♖b6+ 2 ♕xb6#**. Finally, **1...♗d4** is met elegantly by **2 ♘xc6#**. A traditional crosschecker from Barry Barnes, one of Britain's leading modernists. The interplay of the three batteries provides excellent geometric entertainment. One of the reasons for this problem's renown is its impeccable economy. Such problems with between eight

eight and twelve men are known as 'Meredith's'.

Ex. 8.25:

1 ♖g1!! (waiting).

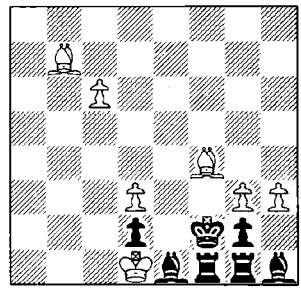


A stunning key putting the rook *en prise* and doing the very opposite of giving the queen more air by smothering her completely. The sole purpose of the move is to be able, after **1...♔f5**, to continue with the equally extraordinary **2 ♘f2!!** leaving Black with two possibilities: **2...gxf2 3 g4#,** finally demonstrating the key's deep point – the rook protects the pawn! The alternative **2...hxg1♕ 3 ♕h5#** is more humdrum. Now look at the alternative move **1...hxg1♕**; obviously, this opens a line for the white queen, but even then the continuation **2 ♘c5+!** scarcely leaps to the eye. If **2...♕xc5** we discover that the black queen has compensated for the capture of the knight by the clearance of White's back rank, making **3 ♕b1#** possible. If instead **2...♔f5**, we have a small flaw in the dual mate by **3 ♕h3#** or **3 ♕h5#**. The final variation occurs after **1...♔xd3**; the white rook now throws itself into reverse gear and streaks across the board to make room for the queen with a sublime Bristol manoeuvre: **2 ♖a1!!**. Now **2...♔xe2** is answered by **3 ♕f1#**, while the alternatives see the queen marching down the red carpet rolled out before her by the rook to deliver **3 ♕b1#**.

Ex. 8.26:

An amusing position in which Black stands stalemated.

1 ♗f5! ♔f3 2 ♗g4+ ♔f2 3 ♗c8! ♔f3 4 ♗b7+ ♔f2 5 c6



This is the point of White's bishop manoeuvre, but what is the point of the point?

5...♔f3 6 c7+ ♔f2 7 ♗c8! ♔f3 8 ♗g4+ ♔f2 9 ♗f5 ♔f3 10 ♗e4+ ♔f2 11 ♗d6! ♔e3 12 ♗c5#

Thus the purpose of advancing the c-pawn was not to promote it, but simply to clear the c5-square (depth). Note the extended switchback of the e4-bishop (geometry and smooth flow). A curious feature of this problem is that not a squeak is heard from the black organ-pipes!

Unorthodox Problems

Ex. 9.18:

a) **1 ♔g4 ♖g7+ 2 ♔h3 ♘f4#.**

b) **1 ♔g6 ♖d8 2 ♔h7 ♗f5#.**

c) **1 ♔e4 c3 2 ♔d3 ♗f5#.**

d) **1 ♔e6 c7 2 ♔d7 c8♕#.**

The disappearing white pieces are very entertaining – try to figure out why the solutions to (b), (c) and (d) do not work in their predecessors! However, the real attraction of this work is the 'double starflight' created by the moves of the black king.

Ex. 9.19:

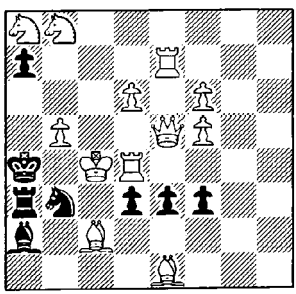
a) **1 g1♘ 2 ♘e2 3 ♔g2 4 ♔g1 5 ♘c1 6 a1♕ 7 ♕a8 8 ♕h1, ♗d4#.**

b) **1 g1♗ 2 ♗e3 3 ♗c1 4 a1♖ 5 ♖a4 6 ♗f4 7 ♔e3 8 ♖e4, ♖b3#.**

The mid-board mate in (b) is particularly difficult to find. The Allumwandlung is achieved with superb economy and precision.

Ex. 9.20:

1 ♖e7!



This obscure move threatens the startling king march 2 ♔d5+ ♔xb5 3 ♔e6+ ♘c5#. Black can deal with this threat in several ways:

1) **1...♗b1** destroys the bishop + knight battery, so that 3...♘c5+ is no longer mate. **2 ♔c3+!** yet again uses one battery to set up another. **2...♔a5 3 ♔xd3+ ♘d2#.** Now we see that **1...♗b1** was a case of negative depth, in that the bishop on c2 is pinned and unable to interpose on b3. Note the fiendish ingenuity with which the mating net has been cast, particularly the way the black knight achieves so much with one move.

2) **1...d2**, so that 2 ♔d5+? can be met by 2...♔a5!. **2 ♔d3+! ♔a5 3 b6+! ♘c5#.** Another double check, this time with the rook and knight.

3) **1...dxc2** prepares to meet 2 ♔d5+? with 2...♘xd4!. **2 ♘b6+! axb6 3 ♖a7+! ♘a5#.** More negative depth, since 1...dxc2 unpinned the black knight enabling the final mating move.

Beautifully constructed, with a deep opener, turbulent flow and intricate geometry. The white king proves – paradoxically for a selfmate – to be a moving target. A problem in the grand manner with which to bid the reader farewell.

The composer, Donald McIntyre, was co-author David Friedgood's original chess problem mentor in Cape Town during the early sixties.

Bibliography

Periodicals

American Chess Journal
British Chess Magazine
British Endgame Study News
Chess
Chess Informant
ChessBase Magazine
Diagrammes
EG
Inside Chess
New in Chess
Shakhmatnaya Kompositsiya
The Problemist

Websites

Art et curiosités échiquéennes (www.jmrw.com)
Knowledge4IT (www.k4it.de)
Tim Krabbé's Chess Curiosities (www.xs4all.nl/~timkr/chess/chess.html)

Books

General works on chess:

A.Avni, *Creative Chess*, Pergamon 1991
D.Bronstein, *The Chess Struggle in Practice*, David Mackay and Co. 1978
I.Damsky, *Chess Brilliancy*, Everyman Chess 2002
J.Emms, *The Most Amazing Chess Moves of All Time*, Gambit 2000

D.Hooper & K.Whyld, *The Oxford Companion to Chess*, O.U.P. 1987
Em.Lasker, *Lasker's Manual of Chess*, Dover 1960
G.Kasparov, *Learn Chess with Garry Kasparov*, B.T.Batsford 1993
G.Kasparov, *My Great Predecessors* (Volumes 1-5), Everyman Chess 2003-06
G.Kasparov, *New World Chess Champion*, Pergamon 1986
J.Nunn, *Solving in Style*, George Allen & Unwin 1985
J.Nunn, *Secrets of Rook Endings*, B.T.Batsford 1992
J.Nunn, *Tactical Chess Endings*, George Allen & Unwin 1981
V.Vukovic, *The Chess Sacrifice*, G.Bell and Sons 1968

Books on the Endgame Study:

I.Chernev, *Practical Chess Endings*, Faber 1962
H.Lommer & M.Sutherland, *1234 Modern End-game Studies*, Dover 1967
H.Lommer, *1357 End-game Studies*, Pitman 1975
G.Kasparian, *Domination in 2545 Endgame Studies*, Raduga 1987
G.Kasparian, *Zamechatelnye Etiudy*, Izdatelstvo 'Ayastan' 1982
G.Nadareishvili, *V Poiskakh Krasoty*, Izdatelstvo 'Sabchota Sakartvelo' 1986
A.Roycroft, *Test Tube Chess*, Faber 1972
J.van Reek, *Chessmen in the Endgame Study*, Alexander Reub Vereniging voor Schaakeindspelstudie 1992

Books on Chess Compositions in general:

Y.Aloni, U.Avner (Eds.), *The Art of Israeli Chess Composition*, Israel Chess Problem Circle 1983
G.Bakcsi (Ed.), *Ungarische Schachproblemanthologie*, Corvina Kiado 1983
B.Barnes, *Comins Mansfield MBE: Chess Problems of a Grandmaster*, British Chess Problem Society 1976
B.Barnes, *Pick of the Best Chess Problems*, Eliot Right Way Books 1976
B.Barnes, *White to Play and Mate in Two*, Eliot Right Way Books 1991
J.Breuer, *Beispiele zur Ideengeschichte des Schachproblems*, Die Schwalbe 1982
V.Chepizhny (Ed.), *Shakhmatnaya Kompositsiya 1977-82*, Fizkultura i Sport 1983
A.Chéron, *Le Joueur d'Echecs au Pays des Merveilles*, Diffusion Payot 1982
F.Chlubna and K.Wenda, *Problempalette II*, Dr.K.Wenda Eigenverlag 1991
W.Dittmann, A.Geister, D.Kutzborski, *Logische Phantasien*, de Gruyter 1986
Engel, Schulz, Kniest, *F.Giegold, 200 Problematische Einfälle und Ideen*, Feenschach 1982
R.Kofman (Ed.), *Shakhmatnaya Kompositsiya 1974-76*, Fizkultura i Sport 1978
M.Lipton, R.Matthews, J.Rice, *Chess Problems: Introduction to an Art*, Faber and Faber 1963
D.McIntyre, *Some Problems for my Friends*, South African Chessplayer 1957

C.J.Morse, *Chess Problems: Tasks and Records* (Faber and Faber 1995)
G.Murkisch, *Rätselvolle Schachaufgaben*, Wilhelm Heyne Verlag 1980
N.Petrović (Ed.), *FIDE Album*, 1977-1979, 1980-1982, 1983-1985, Sportska tribina
J.Rice, *An ABC of Chess Problems*, Faber and Faber 1970
J.Rice, *Chess Wizardry*, B.T.Batsford 1996
J.Rice & A.Dickins, *The Serieshelpmate*, 1978
J.Rusinek, *Sto Kompozycji Szachowych*, Aula Medycyna 1991
W.Sidler, *Problemschach*, W.Sidler Eigenverlag 1968
K-H.Siehndel (Ed.), *Problemschach*, Sportverlag Berlin 1985
W.Speckmann, *Perlen der Schachkomposition*, Walter de Gruyter 1985

Index of Players and Composers

References are to page numbers.

Suffixes have the following meanings:
c – composer
w – player of white pieces
b – player of black pieces.

Abdurahmanović F. 232c, 234c, 235c, 257c
Adams E. 16w
Al-Adli 29c
Afek Y. 125c
Alaikov V. 239c
Alekhine A.A. 58w
Aleksandrov V. 56c
Alexander C.H.O'D. 58b
Allies 224b
Aloni H. 236c
Anderson W. 255c
Andersson U. 159
Averbakh Y. 39w 59w

Baburin A. 145b
Bakcsi G. 232c, 246c
Balazs J. 240c
Barnes B.P. 230c

Bazlov Y. 197c
Benko P. 174c, 190c, 191c
Bouma G. 225c
Boyer J.P. 221c
Bull C.A.L. 230c
Bunting J. 91c

Caillaud M. 262c
Catić O. 234c
Chekhover V.A. 56c
Chepizhny V. 235c
Chuiko I. 190c
Computer 184c

Dobrescu E. 86c
Down N. 141b
Dreyers A. 56c
Dufek 140b
Durović 157b

Elkies N. 87c
Engel H. 85c

Farago I. 153b
Friedgood D. 90c, 156w
Fritz J. 91c

Giegold F. 56c, 84c, 85c
Goethart G.H. 57c
Gorgiev T.B. 181c, 188c, 189c, 198c, 204c
Grant H.W. 56c
Grasemann H. 211c, 212c
Gulko B. 154w
Guliaev A.P. 113c
Gurgenidze D. 76c, 81c, 134c, 203c
Gurvich A.S. 27c, 72c
Gusev B. 99c

Halberstadt V. 177c
Hasselkus E. 253c

Havel M. 207c
Heinonen U. 220c, 244c
Herbstman A.O. 91c, 109c, 176c
Heuäcker P. 92c
Hoch Y. 79c
Hodgson J. 141w, 145w, 146c
Howell D. 41w
Howell J. 140w
Hübner R. 138b
Hume G. 91c
Hurtig A. 65c

Isaev I..A. 106c
Isenegger S. 76c
Ivanchuk V. 64b, 127, 143w

Janosi E. 133c
Jørgensen W. 225c

Kahl P. 241c
Kalandadze F. 81c
Kamsky G. 70w, 147b
Karpati A. 259c
Karpov A. 18w, 70b, 127b, 140b, 147w, 154b, 161w, 162w
Kasparian G.M. 40c, 69c, 123c
Kasparov G. 138w, 140w, 142w, 147b, 159w, 161b, 164w
Kassai R. 187c
Keller M. 223c
Koblencs A. 144b
Korolkov V.A. 97c, 171c, 176c, 258c
Korteling W. 200c
Kosten A. 153w
Kotov A. 59b
Koziuri G. 208c
Kraemer A. 103c, 211c
Kricheli J. 237c
Krobshofer O. von 62c
Kubbel L.I. (K.A.L.) 19c, 92c, 204c
Kveinys A. 144b

Lasker Ed. 126w
Laue H. 268c
Lerch J. 122c
Levitt J. 41b, 90c, 144w, 228c, 242c
Levman S.S. 106c
Lewis R.T. 74c
Liburkin M.S. 96c, 115c, 185c, 186c
Lider V. 219c
Lindgren B. 247c
Lipton M. 108c
Lobusov A. 214c
Lommer H. 53c
Loshinsky L. 33c, 43c, 98c, 258c
Loyd S. 32c, 70c, 230c, 254c

Macleod N.A. 213c
Mansfield C. 216c
Marandyuk M. 226c
Marsh S. 56b
Matous M. 78c
Matthews R.C.O. 105c
McIntyre D.G. 111c, 247c
Meier R. 40w
Meyer H. 205c
Mikenas A. 158b
Miles A.J. 109w
Millican P. 141w
Missiaen R. 201c
Mitrofanov L. 97c, 176c, 203c, 205c
Mladenovic M. 232c, 258c
Møller J. 209c
Morse C.J. 117c
Müller S. 40b
Myllyniemi M. 233c

Nadanian 140w
Nadareishvili G.A. 63c, 120c, 182c
Nissl T. 33c
Norwood D.R. 56w
Nunn J.D.M. 37c, 184c

Ott M. 130c

Parthasarathy M. 116c
Pervakov O. 99c, 195c
Petrosian T. 150b
Pletánek 140w
Pogosiants E.L. 115c
Pritchett C.W. 109b
Prokeš L. 205c
Psakhis L. 141b

Quah J. 107c

Ratner E. 35c
Rehm H-P. 224c 230c
Réti R. 71c
Rice J.M. 218c
Richter F. 28c
Rinck H. 31c, 112c, 176c, 178c
Rozentalis E. 143b, 158w
Rudenko V. 93c, 235c, 238c

Saavedra F. 30c
Sarbatov 140b
Sarychev A. & K. 66c, 68c
Schmidt P.F. 144w
Schmidt P.R. 144b
Schneider S. 210c
Shirov A. 38w
Short N.D. 138b, 142b
Shuriakov A. 95c
Simkhovich F.M. 179c
Slepian G. 193c
Smyslov V.V. 102c, 172c
Spassky B.V. 39B, 150w
Sphicas G.P. 265c
Spirin A. 214c
Sutter A. 110c
Syzonenko V. 95c

Tal M.N. 144w
Tarrasch S. 224w
Thomas G. 126b
Timman J. 138w, 173c
Topalov V. 38b, 164b
Torre C. 16b
Trautner R. 227c, 261c
Troitsky A.A. 178c
Tylor C. 252c

Unzicker W. 18b

Van der Wiel J. 162b
Van Kemenade 140b
Villeneuve-Esclapon J. de 204c
Vladimirov Y. 97c, 104c, 213c, 222c
Volkmann A. 73c
Vučinić P. 157w
Vukčević M. 233c, 267c

Weber W. 237c
Wiehagen R. 256c

Xu Jun 64w

Zakhodiakin G.N. 56c, 66c, 121c
Zharkov N. 83c
Zoltan L. 236c

Index of Openings, Themes and Definitions

References are to page numbers.
Bold type signifies a leading entry or definition.

Allumwandlung 48, **226**, 261, 275
Bohemian problem **207**
Caro-Kann Defence 70, 127
Computers **180**
Critical Play **110**, 111
Cyclic Change **218**
Cyclic Shuffle **241**
Depth **48**, **75**
    negative **82**
Difficulty 86-88
Domination 28, **31**, 49, 66, 121, 139, **175**, 177, 178, 179, 190, 201
Double Muzio Gambit **141**
Dual **219**
Dual Avoidance 219
Dutch Defence 126
Echo 81, **95**, 105
    mates 233, 234
    chameleon **96**, 208
Economy **50**
English Opening 153, 156
Flow **49**
    smooth and turbulent **119**

Four corners 235, 243
Geometry **48**, **89**
    graphic **91**
    optical logic 90, **99**
    extended **48**, **114**
Grimshaw 43, **108**, 117, 222
Grünfeld Defence 147
Half-pin **215**, 220
Helpmate **231**
Holzhausen **224**
Ideal Mate **233**
Incarceration (paralysis) **102**, 103
Interference **107**
Ladder (also Staircase) 114,120, 240
Letter problem **91**
Logical School **175**
Loshinsky Magnet **98**, 235, 258
Model mate **207**, 213, 233
Modern Defence 140
Move-set **52**
Mutate **74**
Mysterious rook move 203
Notation (P,D,G,F) **13**
Novotny **108**, 109, 110,111, **191**, 193, 194, 223, 224, 227, 228
Obstruction **214**, **223**
Optical logic 90, **99**
Organ Pipes 32, 48, 102, 232, 274
Originality 49
Paradox **48**
    of material **56**
    of set play **73**
    of time **71**
Pendulum 265
Perpetual check 49, 67, 92, 176, 179, 187
Petroff Defence 140
Pickaninny **226**
Pirc Defence 164
Plachutta 40, **223**, 224
Platzwechsel **215**, 227, 240, 245
Positional Draw 49, 56, **66**, **172**, 175

Problem, conventions **217**, 236
orthodox **206**
unorthodox **231**
Prospective selfblock **83**, 105, 208, 226, 232, 234
Queen's Gambit Accepted 64
Queen's Indian Defence 159
Queen's Pawn Game 150
Queen sacrifice 27, 54, 56, 59, 93
Reciprocal Change **106**, 117
Retrograde analysis **237**, **243**
Rundlauf 34, 48, **94**, 104
Selfmate **237**
Scotch Game 138, 142
Series helpmate **242**, 246
Series helpstalemate **130**, 241
Series-movers **241**
Set play 54, **73**
Sicilian Defence 161
Staircase (see Ladder) 114,120, 240
Starflights **53**, 275
Strategic School **215**
Strategy (in problems) **207**
Study **170**
Switchback **92**, 148, 190, 220, 227, 229, 240, 257, 265, 274
Systematic manoeuvre **97**, 186
Triangulation **94**, 236
Underpromotion 38, 48, **62**, 91, 115, 226, 243, 260
Zagoruiko **221**
Zugzwang 27, 32, 37, 43, 49, **71**, 84, 100, 104, 105, 116, 117, 122, 123, 124, 125, 145, 157, 173, 184, 186, 196, 197, 202, 214, 219, 269, 271
mutual/reciprocal **73**

If you thought
EVERYMAN CHESS
books were great...
they are now coming to life as

eBOOKS

Read the complete book, play through the games, analyse the moves using your favourite analysis engine. All fully interactive in ChessBase format.

- **Quick and easy to buy** - available for download within a few clicks. In less than a minute you can be using the ebook.
- **Special offers** – Buy 9 ebooks and get 1 ebook absolutely free.
- **Free samples of every book** – we are giving away a sample chapter of every ebook we publish, so download one now and try before you buy.

All priced at $19.95, our ebooks are available for all levels of player: Starting Out, Dangerous Weapons and Winning Chess series

... and many, many more at

EVERYMANCHESS.COM

'A joyous celebration of chess beauty'
Grandmaster Jonathan Speelman, *The Independent*

Secrets of Spectacular Chess

2nd edition

In the modern classic *Secrets of Spectacular Chess*, Jonathan Levitt and David Friedgood shared their appreciation of chess beauty, engulfing readers with a wealth of magnificent examples from the aesthetic side of the game. Moreover, they demonstrated how this fascinating subject could be analysed, and how it could help players to improve both their understanding and practical play.

Now the authors have produced an eagerly awaited and much-expanded second edition, in which they present further ideas and opinions, provide many new mesmerizing examples of games, studies and problems, and revisit previous material to explain how the theory has developed over recent years. This book really captures the imagination; read it and become hypnotized by the power of chess!

- Written for the practical player
- Full of superb examples from all fields of chess
- Helps you to improve your combinational vision
- Will develop your understanding of spectacular chess ideas

Jonathan Levitt is an experienced Grandmaster who has enjoyed numerous over-the-board successes, including winning the 2005 Staunton Memorial Tournament. A renowned chess teacher, he has been involved in coaching some of the UK's top young players. He organized the inaugural 1996 and 1997 Schools Chess Problem Solving Championship and has composed several prize-winning problems.

David Friedgood is a former South African Champion who is now settled in the UK. He's a FIDE Master, an International Master of Chess Solving, and has won the British Chess Solving title no less than five times. He has been running the Problem World column in *British Chess Magazine* since 1995.

EVERYMAN CHESS

www.everymanchess.com
published in the UK by Gloucester Publishers plc
distributed in the US by the Globe Pequot Press

ISBN 978-1-85744-551-0
52495
9 781857 445510

US $24.95 UK £14.99 CAN $28.95